

**Benefit Review Study of the
Nebraska Retirement Systems**

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I. Introduction

Earlier this year, the Nebraska Public Employees Retirement Board (PERB) recommended a coordinated strategy be developed for the long-term management of the Nebraska Retirement Systems. The coordinated strategy would include a review of benefit, funding, and investment management. The PERB received the support of the Legislative Retirement Committee to proceed with the study, and the Appropriations Committee approved its funding. As the PERB's actuary, Buck Consultants was asked to perform the analysis. This report presents the results of Phase I of the coordinated strategy: a review of the benefits provided by the Nebraska Retirement Systems.

The five major public employee retirement systems of the State of Nebraska were included in the analysis as follows:

State Employees Retirement System

A defined contribution retirement plan requiring employee contributions of 4.33% of pay up to \$19,954 of annual pay and 4.8% over \$19,954. The state matches the employee contributions at the rate of 156%.

School Employees Retirement System

A defined benefit retirement plan providing a benefit at retirement of 1.90% times the average pay of the three highest years of pay times years of creditable service. Employees contribute 7.25% of pay. Participating employers match the employee contributions at the rate of 101%. The State of Nebraska contributes .7% of pay, a fixed appropriation for purchasing power stabilization (approximately .6% of pay), and any other additional contributions as recommended by the actuary to fund the service annuity.

County Employees Retirement System

A defined contribution retirement plan requiring employee contributions of 4% of pay. The employers match the employee contributions at a rate of 150%.

Judges Retirement System

A defined benefit retirement plan providing a benefit at retirement of 3.5% times the average pay of the three highest years of pay times years of creditable service. The maximum benefit is 70% of final average pay. Employee contributions are 6% of pay during the first 20 years of service. Certain court fees are directed to the plan to assist in the funding of benefits. The State of Nebraska contributes a fixed appropriation for purchasing power stabilization, and other additional contributions may be made as recommended by the actuary.

State Patrol Employees Retirement System

A defined benefit retirement plan providing a benefit at retirement of 3% times the average of the three highest years of pay times years of creditable service. The maximum benefit is 75% of final average pay. Employee and State of Nebraska contributions are each 11% of pay. The State of Nebraska also contributes a fixed appropriation for

purchasing power stabilization, and additional state contributions as recommended by the actuary.

Three of the Systems are defined benefit plans and two are defined contribution plans. Defined benefit plans define a benefit at retirement based on an established formula. Defined contribution plans define a contribution rate for both the employee and employer. Since benefits are prescribed in a defined benefit plan, the long-term variable becomes the funding required to support the defined benefit. Conversely, under a defined contribution plan, contributions are prescribed and the resulting benefit becomes the long-term variable. These two kinds of retirement plans are conceptually very different in delivery of benefit, assignment of risk, and providing a certainty of lifetime benefits.

Setting benefit policy for retirement plans can generally be approached in three distinct ways. They are:

- **Benefit Adequacy Approach** – provide retirement income needed to maintain the same standard of living to an employee at and throughout retirement as was earned while the employee was working.
- **Competitiveness Approach** – provide retirement benefits at a level competitive with other regional statewide retirement systems and local employers who are competing for employees with like skills. The objective may be set to provide a benefit level which is equal to or better than the median benefit level of the competing employers.
- **Cost Approach** – provide the best retirement benefit possible given a fixed contribution level and investment risk tolerance. This approach is often associated with defined contribution plans since the cost is fixed and the benefit is dependent on experience, although a defined benefit plan can also use a fixed contribution level, provided additional contributions are made when actuarially necessary.

Policy makers may recognize the importance of achieving more than one goal, and as a result, the benefit policy may incorporate a combination of more than one of the above approaches. For example, the objective may be to provide a retirement benefit that is both (a) adequate to maintain the same standard of living during retirement and (b) competitive with other similar employers. In this case, the strategy would incorporate a combination of the Benefit Adequacy Approach and the Competitiveness Approach. If competitiveness is defined on the basis of the benefit cost instead of the benefit level, a combination of the Benefit Adequacy Approach and the Cost Approach would result.

This report summarizes our findings as they relate to each of these three benefit policy approaches. Our analysis consisted of:

Benefit Adequacy

- determination of income needed at normal retirement age, and earlier for some systems with earlier retirement tendencies, to maintain the same standard of living.

- calculation of income replacement achieved by each system for the average employee expected to retire after working a full career.

Competitiveness

- calculation of the value of significant benefit provisions for each of Nebraska's systems with comparison to systems of other regional statewide systems and local public employers.
- ranking of each system by the relative value of the benefits provided for purposes of comparing Nebraska's systems against the competing group of systems.
- comparison of Nebraska's systems to national survey information. The surveys include:
 - 2000 Workplace Economics survey of State Employee Benefits
 - 2000 survey of State and Local Government Employee Retirement Systems by the GFOA Research Center
 - 1998 characteristics of 100 Large Public Pension Plans by the National Education Association (NEA) Research Division
- identification of national trends.

Cost Approach

- comparison of contribution rates to each of Nebraska's systems to the contribution rates of other regional statewide systems and local public plans.
- consideration of total retirement systems cost, which includes Social Security taxes, for a proper comparison to systems which do not participate in Social Security.

And finally, we conclude our report with a list of suggested changes in benefit provisions which would be needed to achieve a minimum level of benefit adequacy or meet competitiveness. These findings can be found in Section IX on page 60.

II. Benefit Review Findings

The average retiring Nebraska public employee will need the following total income replacement to maintain his or her standard of living in retirement:

| | |
|------------------------|------------------|
| State Employees | 83% of final pay |
| County Employees | 86% of final pay |
| School Employees | 78% of final pay |
| Judicial Employees | 71% of final pay |
| State Patrol Employees | 85% of final pay |

In addition, these needs will increase during retirement, due to inflation during that time. Nebraska's systems covering School, State Patrol, and Judges provide partial cost of living (COLA) protection, while State and County systems provide no COLA provision. Retirement income to meet these needs will be available from the Nebraska Retirement System, Social Security and any voluntary contributions made for retirement while working.

The average Nebraska public employee retiring at normal retirement age will have these needs met through the combination of the Nebraska Retirement System, Social Security and assumed voluntary savings as follows:

| | % of Adequacy Met | Nebraska Systems Compared to Practices of Eight Other States |
|------------------------|-------------------|--|
| State Employees | 98% | Slightly Below Median |
| School Employees | 115% | Slightly Below Median |
| County Employees | 94% | Below Median |
| Judicial Employees | 113% | Below Median |
| State Patrol Employees | 91% | Above Median |

The total benefits provided by the Nebraska Retirement Systems and Social Security have been compared with practices of other states with the following summary of Nebraska Retirement System strengths, weaknesses, and ranking.

II. Benefit Review Findings

Continued

State Employees

- Major Strengths – Vested benefit, Post-retirement Death benefit, Portability
- Major Weaknesses – Lack of COLA, Career benefit, Early Retirement benefit, Variability of benefit
- Overall Ranking – Slightly Below Median
- Employee Contributions Required – Average

School Employees

- Major Strengths – Career benefit and Early Retirement benefit
- Major Weaknesses – Below Average COLA, Vested benefit, Portability
- Overall Ranking – Slightly Below Median
- Employee Contributions Required – Above Average

County Employees

- Major Strengths – Vested benefit, Post-retirement Death benefit, Portability
- Major Weaknesses – Lack of COLA, Career benefit, Early retirement benefit, Variability of benefit
- Overall Ranking – Below Median
- Employee Contributions Required – Below Average

Judicial Employees

- Major Strengths – Career benefit
- Major Weaknesses – Below Average COLA, Early Retirement benefit, Post-retirement Death benefit
- Overall Ranking – Below Median
- Employee Contributions Required – Average

State Patrol Employees

- Major Strengths – Career benefit, Post-retirement Death benefit
- Major Weaknesses – Below Average COLA
- Overall Ranking – Above Median
- Employee Contributions Required – Above Average

The defined contribution plans covering State and County employees are dependent upon favorable investment performance and substantial contributions over the employee's career. A significant volatility in the delivery of retirement benefits is likely under those Systems.

The analysis in this report reflects the significant benefits provided by the Social Security system and assumes the program will continue as presently constituted. The long-term financial viability of the Social Security System is in question, particularly as it relates to benefits provided by Medicare. Medicare payments are expected to exceed revenues in the not too distant future and run out of money by 2023. In the next ten to fifteen years, Social Security revenues are expected to exceed benefit payments and by 2037 it too is expected to be bankrupt. However, significant increases and/or reduction in benefits may be required to accommodate the maturing of the baby boomer generation. Any substantial benefit changes to Social Security or Medicare will require modifications in the Nebraska Retirement Systems if the income replacement needs are to be met. Over the last three years proposed changes to Social Security and Medicare have been a regular part of public debate. Some proposals include mandatory Social Security coverage for all public employees and individual accounts.

The presence of separate defined contribution and defined benefit plans for different classes of public employees in Nebraska is somewhat unusual. Some states are beginning to offer employees a choice between defined benefit and defined contribution plans. Some of the states surveyed provide identical benefits for State, Local, and School employees under a consolidated retirement system. Benefits for both Judicial and Public Safety employees are frequently different due to the different employment and retirement patterns of the employees.

In conclusion, our independent analysis of the benefits provided by the Nebraska Retirement Systems found that:

- The Nebraska practices vary widely, due in part to the use of both defined benefit and defined contribution plans.
- The Nebraska School and Judicial Systems are the strongest systems in meeting employee adequacy needs, but are below median in comparison with other states.
- The Nebraska State Patrol System is the weakest in meeting adequacy needs at retirement, but is above median in comparison with other public safety systems. An increase in the maximum benefit from 75% to 81% (Increase in service cap from 25 to 27 years) would be sufficient to meet adequacy needs for the average retiring career employee. A further increase to a 30 year cap would expand the number meeting adequacy.
- The Nebraska State and County Systems do not meet adequacy needs – 98% and 94%, respectively. Increasing total contribution rates to between 12% and 13% of pay would meet adequacy needs for these career employees at age 65.
- The Nebraska School System ranks slightly below median with other States primarily due to a below average Cost of Living Adjustment (COLA).

II. Benefit Review Findings

Continued

- The defined benefit systems (School, State Patrol, and Judges) rank at median or above median with regard to the initial Normal Retirement benefit.
- The Nebraska State and County Systems rank below median in the amount of the initial normal retirement benefit and may be expected to produce widely varying benefits, as both are defined contribution plans.
- The Nebraska School System had the highest total employee and employer contribution rates.
- The employer contribution to the Nebraska Judges System was below both the regional and National survey averages.

III. Benefit Adequacy

Benefit adequacy for employees of each Nebraska system at a wide range of wage levels were determined to establish the total income needed to maintain the standard of living in the first year of retirement. The results of these calculations are shown in Exhibits 1 through 5.

The assumptions used are shown on the exhibits. The following should also be noted:

1. Only a modest amount of voluntary employee savings (all on a pre-tax basis) at all wage levels has been assumed based on Nebraska experience. A review of the state's 457 plan indicated that while only 20% of eligible employees elect to contribute to the plan, the average contribution rate was 6.3%. Other studies typically assume a higher rate of savings, particularly at higher compensation levels, and usually on an after-tax basis.
2. Retirement is assumed at normal retirement age 65 or early retirement age 62 for all groups except Judges and State Patrol. Public Safety employees traditionally are assumed to retire at age 55 due to the presumed risk and stress of these job functions. This earlier retirement age results in a longer period of time for which retirement benefits are payable. Judges typically serve to age 65 and beyond.
3. Single taxpayer status was considered both before and after retirement to eliminate the subjectivity of determining income from a working spouse.
4. The net change in expenditure data includes estimates of all changes in purchases for a retiree compared to a working employee, including housing, food, travel, entertainment, clothing, medical insurance, etc. Data for change in expenditures was taken from the 1997 Georgia State University Retiree Project Report.
5. According to the 2000 Workplace Economics survey of state employee benefits, only Nebraska and Indiana did not offer medical coverage to retirees after attaining age 65. As a result, our analysis includes a significant adjustment in the change in expenditures after attaining age 65 to consider the cost of "Medigap" insurance needed to maintain the same level of medical coverage as working employees. We also considered the change in the cost to an employee of remaining covered under the State medical plan for employees retiring before age 65. Employees retiring before age 65 may elect to remain covered under the State medical plan up to age 65, but the retiree cost is set at 102% of the total cost for active employees. Working employees pay only 21% of the total cost of single coverage currently.
6. The partially tax-free status of Social Security benefits dampens the income replacement needs. There is a current proposal to exclude all of Social Security from income taxes.
7. Since State Patrol employees do not participate in and do not make the required contributions for Social Security benefits (other than Medicare), their disposable income before retirement and resulting income replacement needs are very high. However, their total required contributions for retirement purposes are also lower than for other groups, which may indicate an ability for higher individual voluntary savings toward retirement for this group. For this reason, a higher voluntary savings rate of 3% of pay has been assumed for these employees.

8. The exhibits illustrate the income replacement needed at the time of retirement only. While retiree expenditures change somewhat with advancing age (e.g., less on food, travel and housing, but more on health care and long-term care), inflation after retirement dilutes the retiree's total purchasing power. For purposes of the comparisons made in this report, it is assumed that inflation, as measured by the Consumer Price Index, decreases the purchasing power of the retiree after retirement when benefits are not adjusted to recognize this rate of inflation.

The results of our calculations indicate that total gross income replacement at retirement including Social Security of between 70% and 90% of salary is generally required for employees of each Nebraska System except State Patrol when all wage levels are considered. The State Patrol adequacy needs are slightly higher due to the absence of a partially taxed Social Security benefit. In addition:

- State Patrol employees have a much higher income replacement need of 85%, for the reasons noted earlier. In addition, the earlier projected retirement ages require this higher income replacement to be paid over a longer span of years.
- The average annual salary for career employees at or close to retirement age for each system based on 1999 salaries and resulting income replacement needs are as follows:

| System | Average Salary | Income Replacement Need |
|--------------|-------------------|-------------------------------|
| State | \$ 35,000 | 83% |
| County | 30,000 | 86 |
| School | 40,000 | 78 |
| State Patrol | 50,000 | 85 |
| Judges | 75,000 | 71 |

An example of the determination of income replacement needs for a sample employee follows.

Determination of Income Replacement Need

As an example of the determination of income replacement needs, consider a Nebraska State employee earning \$30,000 and retiring at age 65 (line 3 of Exhibit 1 on page 12).

The employee had disposable (spendable) income after taxes and retirement contributions of 73.76% of pay, determined as follows:

| Column | Item | |
|--------|---|-----------------------------|
| A | Gross Pay | = \$ 30,000 100.00% |
| less B | Social Security and Medicare Taxes | = - 2,295 7.65% of pay |
| less C | Federal and State Income Taxes | = - 3,930 13.10% of pay |
| less D | Required Retirement Plan Contributions | = - 1,346 4.49% of pay* |
| less E | Voluntary Retirement Plan Contributions | = - <u>300</u> 1.00% of pay |
| F | Disposable Income | = \$ 22,129 73.76% of pay |

* Contributions are 4.33% of annual pay up to \$19,954 plus 4.8% of annual pay over \$19,954.

An analysis of typical spending patterns for retired employees compared to working employees indicated that employees retiring at this wage level require 8.3% of pay more in income because their spending needs change after retirement. For example, work related expenses are eliminated, and the need for other savings may be reduced. Some expenses may increase, such as costs for health care and medical insurance, including payment of Medicare's Part B premium. Since Nebraska's state employees are not covered by the state's medical plan after reaching age 65, retirees must purchase individual medical insurance to supplement Medicare in order to maintain the same level of medical coverage. As a result, this employee needs to have spendable income of 82.06% of pay to have the same purchasing power as before.

| Column | Item | |
|--------|---|-------------------------------|
| F | Disposable Income | = \$ 22,129 73.76% of pay |
| plus G | Net Change in Expenditures | = + <u>2,490</u> 8.30% of pay |
| H | Net Spendable Income Needed at Retirement | = \$ 24,619 82.06% of pay |

III. Benefit Adequacy

Continued

However, in order to have that much spendable income after retirement, this employee needs to have a greater total income because Federal and State Income taxes must be paid on the benefits from the retirement System and on a portion of Social Security payments for some employees.

| Column | Item | |
|--------|--|---------------------------|
| H | Net Spendable Income Needed at Retirement | = \$ 24,619 82.06% of pay |
| plus I | Federal and State Income Taxes | = + 899 3.00% of pay |
| J | Before-tax gross income required at retirement | = \$ 25,518 85.06% of pay |

Total Retirement Income of \$25,518 or 85.06% of this employee's pay at retirement will enable this employee to suffer no reduction in his or her standard of living at retirement. However, cost of living adjustments would be required during retirement to keep up with inflation.

IV. Exhibits: Income Replacement Needs by System

Exhibit 1

Nebraska State Employees Retirement System

Assuming Age 65 Retirement

| Before Retirement | | | | | | | | After Retirement | |
|---|---------------------------|---------------------------------------|--------------------------------------|------------------|-----------------------------|---|--|--|--|
| Gross Income From Employment (A) | Taxes | | Pre-Retirement Plan Contributions | | Disposable Income (F) | Net Change in Expenditures (G) | Net Pre- Retirement Income Replacement Required (H) | Post- Retirement Federal and State Income Taxes (I) | Before-Tax Income Required at Retirement (J) |
| | Social Security (B) | Federal and State Income (C) | Required (D) | Voluntary (E) | | | | | |
| \$ 20,000 | 7.65% | 10.7% | 4.33% | 1.0% | 76.32% | 13.8% | 90.12% | 0.5% | 90.62% |
| 25,000 | 7.65 | 12.1 | 4.42 | 1.0 | 74.83 | 11.0 | 85.83 | 2.1 | 87.93 |
| 30,000 | 7.65 | 13.1 | 4.49 | 1.0 | 73.76 | 8.3 | 82.06 | 3.0 | 85.06 |
| 40,000 | 7.65 | 14.8 | 4.57 | 1.0 | 71.98 | 4.0 | 75.98 | 4.1 | 80.08 |
| 50,000 | 7.65 | 17.3 | 4.61 | 1.0 | 69.44 | 0.7 | 70.14 | 4.9 | 75.04 |
| 60,000 | 7.65 | 19.0 | 4.64 | 1.0 | 67.71 | (1.6) | 66.11 | 5.3 | 71.41 |
| 70,000 | 7.65 | 20.2 | 4.67 | 1.0 | 66.48 | (3.2) | 63.28 | 6.6 | 69.88 |
| 80,000 | 7.36 | 21.1 | 4.68 | 1.0 | 65.86 | (3.8) | 62.06 | 12.3 | 74.36 |
| 90,000 | 6.70 | 22.0 | 4.70 | 1.0 | 65.60 | (3.7) | 61.90 | 16.8 | 78.70 |

ASSUMPTIONS

- Income- Income from employment only.
- Social Security Taxes – 2000 Tax Rates including Medicare taxes.
- Pre-Retirement Federal and State Taxes – single taxpayer, earnings from employment only, standard deduction or 15% of income if greater, 2000 Federal tax rates and Nebraska State Income Tax Rates.
- Required Plan Contributions – 4.33% of income up to \$19,954 plus 4.80% of income in excess of \$19,954 payable to the Retirement Plan on a pre-tax basis.
- Voluntary Plan Contributions – Assumed to be on a pre-tax basis.
- Net Change in Expenditures –Based on data from the Consumer Expenditure Survey of the U.S. Department of Labor Bureau of Labor Statistics for working and retired population as reported by the Center for Risk Management and Insurance Research of Georgia State University, adjusted for State of Nebraska estimated costs for retiree medical insurance.
- Post-Retirement Federal and State Taxes – single taxpayer, eligible for primary Social Security benefits at age 65, standard deduction or 15% of pre-retirement income if greater, income from Social Security and taxable retirement income only, 2000 Federal Income Tax Rates including partial taxation of Social Security, and Nebraska State Income Tax rates.

IV. Exhibits: Income Replacement Needs by System

Exhibit 2

School Retirement System of the State of Nebraska

Assuming Age 65 Retirement

| Before Retirement | | | | | | | | After Retirement | |
|---|---------------------------|---------------------------------------|--------------------------------------|------------------|-----------------------------|---|--|--|--|
| Gross Income From Employment (A) | Taxes | | Pre-Retirement Plan Contributions | | Disposable Income (F) | Net Change in Expenditures (G) | Net Pre- Retirement Income Replacement Required (H) | Post- Retirement Federal and State Income Taxes (I) | Before-Tax Income Required at Retirement (J) |
| | Social Security (B) | Federal and State Income (C) | Required (D) | Voluntary (E) | | | | | |
| \$ 20,000 | 7.65% | 10.2% | 7.25% | 1.0% | 73.90% | 13.8% | 87.70% | 0.0% | 87.70% |
| 25,000 | 7.65 | 11.6 | 7.25 | 1.0 | 72.50 | 11.0 | 83.50 | 1.6 | 85.10 |
| 30,000 | 7.65 | 12.6 | 7.25 | 1.0 | 71.50 | 8.3 | 79.80 | 2.5 | 82.30 |
| 40,000 | 7.65 | 13.9 | 7.25 | 1.0 | 70.20 | 4.0 | 74.20 | 3.7 | 77.90 |
| 50,000 | 7.65 | 16.4 | 7.25 | 1.0 | 67.70 | 0.7 | 68.40 | 4.6 | 73.00 |
| 60,000 | 7.65 | 18.1 | 7.25 | 1.0 | 66.00 | (1.6) | 64.40 | 5.0 | 69.40 |
| 70,000 | 7.65 | 19.3 | 7.25 | 1.0 | 64.80 | (3.2) | 61.60 | 6.0 | 67.60 |
| 80,000 | 7.36 | 20.2 | 7.25 | 1.0 | 64.19 | (3.8) | 60.39 | 10.3 | 70.69 |
| 90,000 | 6.70 | 21.0 | 7.25 | 1.0 | 64.05 | (3.7) | 60.35 | 16.1 | 76.45 |

ASSUMPTIONS

- Income- Income from employment only.
- Social Security Taxes – 2000 Tax Rates including Medicare taxes.
- Pre-Retirement Federal and State Taxes – single taxpayer, earnings from employment only, standard deduction or 15% of income if greater, 2000 Federal tax rates and Nebraska State Income Tax Rates.
- Required Plan Contributions – 7.25% of income payable to the Retirement Plan on a pre-tax basis.
- Voluntary Plan Contributions – Assumed to be on a pre-tax basis.
- Net Change in Expenditures –Based on data from the Consumer Expenditure Survey of the U.S. Department of Labor Bureau of Labor Statistics for working and retired population as reported by the Center for Risk Management and Insurance Research of Georgia State University, adjusted for State of Nebraska estimated costs for retiree medical insurance.
- Post-Retirement Federal and State Taxes – single taxpayer, eligible for primary Social Security benefits at age 65, standard deduction or 15% of pre-retirement income if greater, income from Social Security and taxable retirement income only, 2000 Federal Income Tax Rates including partial taxation of Social Security, and Nebraska State Income Tax rates.

IV. Exhibits: Income Replacement Needs by System

Exhibit 3

Nebraska County Employees Retirement System

Assuming Age 65 Retirement

| Before Retirement | | | | | | | | After Retirement | |
|---|---------------------------|---------------------------------------|--------------------------------------|------------------|-----------------------------|---|--|--|--|
| Gross Income From Employment (A) | Taxes | | Pre-Retirement Plan Contributions | | Disposable Income (F) | Net Change in Expenditures (G) | Net Pre- Retirement Income Replacement Required (H) | Post- Retirement Federal and State Income Taxes (I) | Before-Tax Income Required at Retirement (J) |
| | Social Security (B) | Federal and State Income (C) | Required (D) | Voluntary (E) | | | | | |
| \$ 20,000 | 7.65% | 10.8% | 4.0% | 1.0% | 76.55% | 13.8% | 90.35% | 0.6% | 90.95% |
| 25,000 | 7.65 | 12.2 | 4.0 | 1.0 | 75.15 | 11.0 | 86.15 | 2.2 | 88.35 |
| 30,000 | 7.65 | 13.2 | 4.0 | 1.0 | 74.15 | 8.3 | 82.45 | 3.1 | 85.55 |
| 40,000 | 7.65 | 15.0 | 4.0 | 1.0 | 72.35 | 4.0 | 76.35 | 4.2 | 80.55 |
| 50,000 | 7.65 | 17.5 | 4.0 | 1.0 | 69.85 | 0.7 | 70.55 | 5.0 | 75.55 |
| 60,000 | 7.65 | 19.2 | 4.0 | 1.0 | 68.15 | (1.6) | 66.55 | 5.5 | 72.05 |
| 70,000 | 7.65 | 20.4 | 4.0 | 1.0 | 66.95 | (3.2) | 63.75 | 6.8 | 70.55 |
| 80,000 | 7.36 | 21.4 | 4.0 | 1.0 | 66.24 | (3.8) | 62.44 | 12.8 | 75.24 |
| 90,000 | 6.70 | 22.3 | 4.0 | 1.0 | 66.00 | (3.7) | 62.30 | 17.0 | 79.30 |

ASSUMPTIONS

- Income- Income from employment only.
- Social Security Taxes – 2000 Tax Rates including Medicare taxes.
- Pre-Retirement Federal and State Taxes – single taxpayer, earnings from employment only, standard deduction or 15% of income if greater, 2000 Federal tax rates and Nebraska State Income Tax Rates.
- Required Plan Contributions – 4.0% of income payable to the Retirement Plan on a pre-tax basis.
- Voluntary Plan Contributions – Assumed to be on a pre-tax basis.
- Net Change in Expenditures –Based on data from the Consumer Expenditure Survey of the U.S. Department of Labor Bureau of Labor Statistics for working and retired population as reported by the Center for Risk Management and Insurance Research of Georgia State University, adjusted for State of Nebraska estimated costs for retiree medical insurance.
- Post-Retirement Federal and State Taxes – single taxpayer, eligible for primary Social Security benefits at age 65, standard deduction or 15% of pre-retirement income if greater, income from Social Security and taxable retirement income only, 2000 Federal Income Tax Rates including partial taxation of Social Security, and Nebraska State Income Tax rates.

IV. Exhibits: Income Replacement Needs by System

Exhibit 4

Judges Retirement System of the State of Nebraska

Assuming Age 65 Retirement

| Before Retirement | | | | | | | | After Retirement | |
|---|---------------------------|---------------------------------------|--------------------------------------|------------------|-----------------------------|---|--|--|--|
| Gross Income From Employment (A) | Taxes | | Pre-Retirement Plan Contributions | | Disposable Income (F) | Net Change in Expenditures (G) | Net Pre- Retirement Income Replacement Required (H) | Post- Retirement Federal and State Income Taxes (I) | Before-Tax Income Required at Retirement (J) |
| | Social Security (B) | Federal and State Income (C) | Required (D) | Voluntary (E) | | | | | |
| \$ 20,000 | 7.65% | 10.4% | 6.0% | 1.0% | 74.95% | 13.8% | 88.75% | 0.2% | 88.95% |
| 25,000 | 7.65 | 11.8 | 6.0 | 1.0 | 73.55 | 11.0 | 84.55 | 1.8 | 86.35 |
| 30,000 | 7.65 | 12.8 | 6.0 | 1.0 | 72.55 | 8.3 | 80.85 | 2.8 | 83.65 |
| 40,000 | 7.65 | 14.3 | 6.0 | 1.0 | 71.05 | 4.0 | 75.05 | 3.9 | 78.95 |
| 50,000 | 7.65 | 16.8 | 6.0 | 1.0 | 68.55 | 0.7 | 69.25 | 4.7 | 73.95 |
| 60,000 | 7.65 | 18.5 | 6.0 | 1.0 | 66.85 | (1.6) | 65.25 | 5.1 | 70.35 |
| 70,000 | 7.65 | 19.8 | 6.0 | 1.0 | 65.55 | (3.2) | 62.35 | 6.3 | 68.65 |
| 80,000 | 7.36 | 20.7 | 6.0 | 1.0 | 64.94 | (3.8) | 61.14 | 11.2 | 72.34 |
| 90,000 | 6.70 | 21.5 | 6.0 | 1.0 | 64.80 | (3.7) | 61.10 | 16.4 | 77.50 |

ASSUMPTIONS

- Income- Income from employment only.
- Social Security Taxes – 2000 Tax Rates including Medicare taxes.
- Pre-Retirement Federal and State Taxes – single taxpayer, earnings from employment only, standard deduction or 15% of income if greater, 2000 Federal tax rates and Nebraska State Income Tax Rates.
- Required Plan Contributions – 6.0% of income payable to the Retirement Plan on a pre-tax basis.
- Voluntary Plan Contributions – Assumed to be on a pre-tax basis.
- Net Change in Expenditures –Based on data from the Consumer Expenditure Survey of the U.S. Department of Labor Bureau of Labor Statistics for working and retired population as reported by the Center for Risk Management and Insurance Research of Georgia State University, adjusted for State of Nebraska estimated costs for retiree medical insurance.
- Post-Retirement Federal and State Taxes – single taxpayer, eligible for primary Social Security benefits at age 65, standard deduction or 15% of pre-retirement income if greater, income from Social Security and taxable retirement income only, 2000 Federal Income Tax Rates including partial taxation of Social Security, and Nebraska State Income Tax rates.

IV. Exhibits: Income Replacement Needs by System

Exhibit 5

Nebraska State Patrol Retirement System

Assuming Age 55 Retirement

| Before Retirement | | | | | | | | After Retirement | |
|---|---------------------------|---------------------------------------|--------------------------------------|------------------|-----------------------------|---|--|--|--|
| Gross Income From Employment (A) | Taxes | | Pre-Retirement Plan Contributions | | Disposable Income (F) | Net Change in Expenditures (G) | Net Pre- Retirement Income Replacement Required (H) | Post- Retirement Federal and State Income Taxes (I) | Before-Tax Income Required at Retirement (J) |
| | Social Security (B) | Federal and State Income (C) | Required (D) | Voluntary (E) | | | | | |
| \$ 20,000 | 1.45% | 9.1% | 11.0% | 3.0% | 75.45% | 11.6% | 87.05% | 11.4 | 98.45% |
| 25,000 | 1.45 | 10.5 | 11.0 | 3.0 | 74.05 | 9.3 | 83.35 | 12.3 | 95.65 |
| 30,000 | 1.45 | 11.4 | 11.0 | 3.0 | 73.15 | 6.9 | 80.05 | 12.9 | 92.95 |
| 40,000 | 1.45 | 12.1 | 11.0 | 3.0 | 72.45 | 2.9 | 75.35 | 13.5 | 88.85 |
| 50,000 | 1.45 | 14.4 | 11.0 | 3.0 | 70.15 | (0.1) | 70.05 | 15.1 | 85.15 |
| 60,000 | 1.45 | 16.1 | 11.0 | 3.0 | 68.45 | (2.4) | 66.05 | 15.9 | 81.95 |
| 70,000 | 1.45 | 17.3 | 11.0 | 3.0 | 67.25 | (3.8) | 63.45 | 16.6 | 80.05 |
| 80,000 | 1.45 | 18.2 | 11.0 | 3.0 | 66.35 | (4.3) | 62.05 | 17.3 | 79.35 |
| 90,000 | 1.45 | 18.9 | 11.0 | 3.0 | 65.65 | (4.2) | 61.45 | 18.1 | 79.55 |

ASSUMPTIONS

Income- Income from employment only.

B. Social Security Taxes – 2000 Tax Rates including Medicare taxes.

C. Pre-Retirement Federal and State Taxes – single taxpayer, earnings from employment only, standard deduction or 15% of income if greater, 2000 Federal tax rates and Nebraska State Income Tax Rates.

D. Required Plan Contributions – 11.0% of income payable to the Retirement Plan on a pre-tax basis.

E. Voluntary Plan Contributions – Assumed to be on a pre-tax basis.

G. Net Change in Expenditures –Based on data from the Consumer Expenditure Survey of the U.S. Department of Labor Bureau of Labor Statistics for working and retired population as reported by the Center for Risk Management and Insurance Research of Georgia State University, adjusted for State of Nebraska estimated costs for retiree medical insurance.

I. Post-Retirement Federal and State Taxes – single taxpayer, not eligible for Social Security benefits, standard deduction or 15% of pre-retirement income if greater, income from taxable retirement income only, 2000 Federal Income Tax Rates and Nebraska State Income Tax rates.

IV. Exhibits: Income Replacement Needs by System

Exhibit 6

Nebraska State Employees Retirement System

Assuming Age 62 Retirement

| Before Retirement | | | | | | | | After Retirement | |
|---|---------------------------|---------------------------------------|--------------------------------------|------------------|-----------------------------|---|--|--|--|
| Gross Income From Employment (A) | Taxes | | Pre-Retirement Plan Contributions | | Disposable Income (F) | Net Change in Expenditures (G) | Net Pre- Retirement Income Replacement Required (H) | Post- Retirement Federal and State Income Taxes (I) | Before-Tax Income Required at Retirement (J) |
| | Social Security (B) | Federal and State Income (C) | Required (D) | Voluntary (E) | | | | | |
| \$ 20,000 | 7.65% | 10.7% | 4.33% | 1.0% | 76.32% | 11.6% | 87.92% | 2.6% | 90.52% |
| 25,000 | 7.65 | 12.1 | 4.42 | 1.0 | 74.83 | 9.3 | 84.13 | 4.0 | 88.13 |
| 30,000 | 7.65 | 13.1 | 4.49 | 1.0 | 73.76 | 6.9 | 80.66 | 4.8 | 85.46 |
| 40,000 | 7.65 | 14.8 | 4.57 | 1.0 | 71.98 | 2.9 | 74.88 | 5.4 | 80.28 |
| 50,000 | 7.65 | 17.3 | 4.61 | 1.0 | 69.44 | (0.1) | 69.34 | 5.7 | 75.04 |
| 60,000 | 7.65 | 19.0 | 4.64 | 1.0 | 67.71 | (2.4) | 65.31 | 6.4 | 71.71 |
| 70,000 | 7.65 | 20.2 | 4.67 | 1.0 | 66.48 | (3.8) | 62.68 | 8.3 | 70.98 |
| 80,000 | 7.36 | 21.1 | 4.68 | 1.0 | 65.86 | (4.3) | 61.56 | 15.1 | 76.66 |
| 90,000 | 6.70 | 22.0 | 4.70 | 1.0 | 65.60 | (4.2) | 61.40 | 16.9 | 78.30 |

ASSUMPTIONS

- F. Income- Income from employment only.
- G. Social Security Taxes – 2000 Tax Rates including Medicare taxes.
- H. Pre-Retirement Federal and State Taxes – single taxpayer, earnings from employment only, standard deduction or 15% of income if greater, 2000 Federal tax rates and Nebraska State Income Tax Rates.
- I. Required Plan Contributions – 4.33% of income up to \$19,954 plus 4.80% of income in excess of \$19,954 payable to the Retirement Plan on a pre-tax basis.
- J. Voluntary Plan Contributions – Assumed to be on a pre-tax basis.
- G. Net Change in Expenditures –Based on data from the Consumer Expenditure Survey of the U.S. Department of Labor Bureau of Labor Statistics for working and retired population as reported by the Center for Risk Management and Insurance Research of Georgia State University, adjusted for State of Nebraska estimated costs for retiree medical insurance.
- I. Post-Retirement Federal and State Taxes – single taxpayer, eligible for primary Social Security benefits at age 65, standard deduction or 15% of pre-retirement income if greater, income from Social Security and taxable retirement income only, 2000 Federal Income Tax Rates including partial taxation of Social Security, and Nebraska State Income Tax rates.

IV. Exhibits: Income Replacement Needs by System

Exhibit 7

School Retirement System of the State of Nebraska

Assuming Age 62 Retirement

| Before Retirement | | | | | | | | After Retirement | |
|---|---------------------------|---------------------------------------|--------------------------------------|------------------|-----------------------------|---|--|--|--|
| Gross Income From Employment (A) | Taxes | | Pre-Retirement Plan Contributions | | Disposable Income (F) | Net Change in Expenditures (G) | Net Pre- Retirement Income Replacement Required (H) | Post- Retirement Federal and State Income Taxes (I) | Before-Tax Income Required at Retirement (J) |
| | Social Security (B) | Federal and State Income (C) | Required (D) | Voluntary (E) | | | | | |
| \$ 20,000 | 7.65% | 10.2% | 7.25% | 1.0% | 73.90% | 11.6% | 85.50% | 2.0% | 87.50% |
| 25,000 | 7.65 | 11.6 | 7.25 | 1.0 | 72.50 | 9.3 | 81.80 | 3.5 | 85.30 |
| 30,000 | 7.65 | 12.6 | 7.25 | 1.0 | 71.50 | 6.9 | 78.40 | 4.3 | 82.70 |
| 40,000 | 7.65 | 13.9 | 7.25 | 1.0 | 70.20 | 2.9 | 73.10 | 5.1 | 78.20 |
| 50,000 | 7.65 | 16.4 | 7.25 | 1.0 | 67.70 | (0.1) | 67.60 | 5.4 | 73.00 |
| 60,000 | 7.65 | 18.1 | 7.25 | 1.0 | 66.00 | (2.4) | 63.60 | 5.8 | 69.40 |
| 70,000 | 7.65 | 19.3 | 7.25 | 1.0 | 64.80 | (3.8) | 61.00 | 6.5 | 66.10 |
| 80,000 | 7.36 | 20.2 | 7.25 | 1.0 | 64.19 | (4.3) | 59.89 | 13.0 | 72.89 |
| 90,000 | 6.70 | 21.0 | 7.25 | 1.0 | 64.05 | (4.2) | 59.85 | 16.2 | 76.05 |

ASSUMPTIONS

- A. Income- Income from employment only.
- B. Social Security Taxes – 2000 Tax Rates including Medicare taxes.
- C. Pre-Retirement Federal and State Taxes – single taxpayer, earnings from employment only, standard deduction or 15% of income if greater, 2000 Federal tax rates and Nebraska State Income Tax Rates.
- D. Required Plan Contributions – 7.25% of income payable to the Retirement Plan on a pre-tax basis.
- E. Voluntary Plan Contributions – Assumed to be on a pre-tax basis.
- G. Net Change in Expenditures –Based on data from the Consumer Expenditure Survey of the U.S. Department of Labor Bureau of Labor Statistics for working and retired population as reported by the Center for Risk Management and Insurance Research of Georgia State University, adjusted for State of Nebraska estimated costs for retiree medical insurance.
- I. Post-Retirement Federal and State Taxes – single taxpayer, eligible for primary Social Security benefits at age 65, standard deduction or 15% of pre-retirement income if greater, income from Social Security and taxable retirement income only, 2000 Federal Income Tax Rates including partial taxation of Social Security, and Nebraska State Income Tax rates.

IV. Exhibits: Income Replacement Needs by System

Exhibit 8

Nebraska County Employees Retirement System

Assuming Age 62 Retirement

| Before Retirement | | | | | | | | After Retirement | |
|---|---------------------------|---------------------------------------|--------------------------------------|------------------|-----------------------------|---|--|--|--|
| Gross Income From Employment (A) | Taxes | | Pre-Retirement Plan Contributions | | Disposable Income (F) | Net Change in Expenditures (G) | Net Pre- Retirement Income Replacement Required (H) | Post- Retirement Federal and State Income Taxes (I) | Before-Tax Income Required at Retirement (J) |
| | Social Security (B) | Federal and State Income (C) | Required (D) | Voluntary (E) | | | | | |
| \$ 20,000 | 7.65% | 10.8% | 4.0% | 1.0% | 76.55% | 11.6% | 88.15% | 2.7% | 90.85% |
| 25,000 | 7.65 | 12.2 | 4.0 | 1.0 | 75.15 | 9.3 | 84.45 | 4.1 | 88.55 |
| 30,000 | 7.65 | 13.2 | 4.0 | 1.0 | 74.15 | 6.9 | 81.05 | 4.9 | 85.95 |
| 40,000 | 7.65 | 15.0 | 4.0 | 1.0 | 72.35 | 2.9 | 75.25 | 5.5 | 80.75 |
| 50,000 | 7.65 | 17.5 | 4.0 | 1.0 | 69.85 | (0.1) | 69.75 | 5.8 | 75.55 |
| 60,000 | 7.65 | 19.2 | 4.0 | 1.0 | 68.15 | (2.4) | 65.75 | 6.6 | 72.35 |
| 70,000 | 7.65 | 20.4 | 4.0 | 1.0 | 66.95 | (3.8) | 63.15 | 8.7 | 71.85 |
| 80,000 | 7.36 | 21.4 | 4.0 | 1.0 | 66.24 | (4.3) | 61.94 | 15.5 | 77.44 |
| 90,000 | 6.70 | 22.3 | 4.0 | 1.0 | 66.00 | (4.2) | 61.80 | 17.0 | 78.80 |

ASSUMPTIONS

- Income- Income from employment only.
- Social Security Taxes – 2000 Tax Rates including Medicare taxes.
- Pre-Retirement Federal and State Taxes – single taxpayer, earnings from employment only, standard deduction or 15% of income if greater, 2000 Federal tax rates and Nebraska State Income Tax Rates.
- Required Plan Contributions – 4.0% of income payable to the Retirement Plan on a pre-tax basis.
- Voluntary Plan Contributions – Assumed to be on a pre-tax basis.
- Net Change in Expenditures –Based on data from the Consumer Expenditure Survey of the U.S. Department of Labor Bureau of Labor Statistics for working and retired population as reported by the Center for Risk Management and Insurance Research of Georgia State University, adjusted for State of Nebraska estimated costs for retiree medical insurance.
- Post-Retirement Federal and State Taxes – single taxpayer, eligible for primary Social Security benefits at age 65, standard deduction or 15% of pre-retirement income if greater, income from Social Security and taxable retirement income only, 2000 Federal Income Tax Rates including partial taxation of Social Security, and Nebraska State Income Tax rates.

V. Calculation of Benefit Adequacy Achieved

The amount of a benefit that meets the employee's total income replacement needs at retirement (including cost of living benefits to sustain the purchasing power of the retirement income during retirement) over the employee's lifetime represents the adequate benefit level. In order to precisely meet this level, the Nebraska Systems would replace the amount of income at retirement that, in addition to Social Security and voluntary contributions, meets the employees needs. The required income replacement needed to meet benefit adequacy under each system was shown in Section IV. In addition, all benefits would be adjusted periodically during retirement to restore the purchasing power lost due to inflation. This section compares the ability of each Nebraska System to meet the adequate benefit level.

The following methodology was used to test the ability of the systems to meet the adequate benefit level:

1. Benefits were calculated at Normal or Early Retirement Age (as indicated) based on the service and compensation noted for a representative average career employee of each Nebraska System based on the current benefit provisions of each system.
2. Salaries were assumed to increase according to the scales used in the actuarial valuations of the plans. For purposes of State and County employees, the School salary scale was used.
3. Career employees were assumed to retire with 30 years of credited service for all systems except Judges, for whom 20 years of credited service was assumed.
4. For defined contribution plans and voluntary savings, account balances were assumed to accumulate to retirement based on the employee's total period of employment assuming an annual total investment return of 7.0%. These assumptions reflect typical long-term relationships between inflation and real rates of return (net of expenses) for the current average asset allocation (50% equity, 50% fixed income for both State and County plans). These assumptions are consistent with practices followed in developing funding recommendations under defined benefit plans. These assumptions include:
 - 3.5% annual inflation rate
 - 3.5% annual investment return in excess of inflation (7.0% total)
 - 1994 Group Annuity Mortality (50% male, 50% female)

Current contribution rates were considered. Account balances were converted to a lifetime annuity based on a 7.0% investment return and assuming the annual payments increase 3.5% per year to keep up with inflation.

Our analysis was performed using Buck's Retirement Designer software. The results of our analysis are displayed graphically on the following pages. A description of each graph and comments regarding the information being displayed follows:

- Exhibit 9 – A line graph showing the accruing benefit as a lump sum amount under each system between five and ten years of service. Defined benefits are actuarially reduced before earliest commencement age. This graph illustrates that the State Patrol plan provides the greatest benefit value, excluding Social Security. It also shows that for the remaining four systems, the defined contribution plans under the State and County systems accrue a greater benefit than the defined benefit plans under the School and Judges systems during this period.
- Exhibit 10 – A line graph showing the lump sum value of the accruing benefit from hire date at age 35 to retirement at age 65 after 30 years of service. The State Patrol benefit is capped after 25 years of service. The accrual of the School benefit and Judges benefit begins to exceed the State and County system benefits by age 53 after 18 years of service. The growth in the value of the School system benefit slows after reaching Rule of 85 eligibility at age 60.
- Exhibit 11 – Same as Exhibit 10, benefit expressed as a percent of final pay.
- Exhibit 12 – Same as Exhibit 10, expressed as a monthly benefit amount. The State Patrol benefit increases after 25 years of service due to salary increases only.
- Exhibit 13 – A bar graph showing the ability of the School plan benefit, along with Social Security and voluntary savings, to meet the benefit adequacy target for a career employee at normal retirement age 65 with 30 years of service. The benefit and target income level is shown as a percent of final pay at various annual salary levels ranging from \$20,000 to \$90,000. This graph illustrates that the benefit adequacy target is met for each income level in the range, including the average annual salary for a retiring career employee of \$40,000.
- Exhibit 14 – Same as Exhibit 13, showing the income replacement for a School plan member retiring at age 62 after 30 years of service under Rule of 85 retirement. The income replacement is less than at age 65 due to a reduction in the Social Security benefit, however the benefit adequacy target is still met at each salary level in the range.
- Exhibit 15 – Same as Exhibit 13, except for a School plan member retiring at age 60 after 30 years of service under Rule of 85 retirement. The lack of Social Security benefits before age 62 causes a shortfall, resulting in a benefit level which does not meet adequacy temporarily.
- Exhibit 16 – A bar graph showing the ability of the Judge’s plan benefit, along with Social Security and voluntary savings, to meet the benefit adequacy target for a career employee at normal retirement age 65 with 20 years of service. The benefit and target income level is shown as a percent of final pay at various annual salary levels ranging from \$30,000 to \$90,000. This graph illustrates that the benefit adequacy target is met for each income level in the range, including the average annual salary for a retiring career employee of \$75,000.
- Exhibit 17 - A bar graph showing the ability of the State Patrol plan benefit, along with voluntary savings, to meet the benefit adequacy target for a career employee at normal retirement age 55 with 30 years of service. The benefit and target income level is shown as a percent of final pay at various annual salary levels ranging from \$20,000 to \$90,000. This

graph illustrates that the benefit adequacy target is **not** met below an annual salary level of \$80,000, including the average annual salary for a retiring career employee of \$50,000.

- Exhibit 18 – Same as Exhibit 18, with an increase in the service cap of the State Patrol benefit formula from 25 years to 30 years. The maximum benefit is increased from 75% to 90% of final average salary, resulting in a benefit level that meets the benefit adequacy target at an annual salary level of \$30,000 and above.
- Exhibit 19 - A bar graph showing the ability of the State plan benefit, along with Social Security and voluntary savings, to meet the benefit adequacy target for a career employee at retirement age 65 with 30 years of service. The benefit and target income level is shown as a percent of final pay at various annual salary levels ranging from \$20,000 to \$90,000. The benefit is calculated by converting the account balance at retirement to an annuity (employee and employer portions shown separately) using the assumptions described on page 20. This graph illustrates that the benefit adequacy target is **not** met at any of the salary levels shown, including the average annual salary for a retiring career employee of \$35,000.
- Exhibit 20 – Same as Exhibit 19, except for a State employee retiring at age 62 with 30 years of service. The Social Security benefit is reduced at age 62, and with a longer life expectancy than at age 65, the annuity is reduced, increasing the benefit shortfall.
- Exhibit 21 - A bar graph showing the ability of the County plan benefit, along with Social Security and voluntary savings, to meet the benefit adequacy target for a career employee at retirement age 65 with 30 years of service. The benefit and target income level is shown as a percent of final pay at various annual salary levels ranging from \$20,000 to \$90,000. The benefit is calculated by converting the account balance at retirement to an annuity (employee and employer portions shown separately) using the assumptions described on page 20. This graph illustrates that the benefit adequacy target is **not** met at any of the salary levels shown, including the average annual salary for a retiring career employee of \$30,000.
- Exhibit 22 – Same as Exhibit 19, except for a County employee retiring at age 62 with 30 years of service. With a longer life expectancy than at age 65, the annuity is reduced, increasing the benefit shortfall.
- Exhibit 23 - A bar graph showing the income replacement ratio for a defined contribution plan with an employee contribution rate of 4.8% of total salary, and an employer matching contribution of 156% of the employee contribution. This graph illustrates that an increase in the current level of contributions to the State and County plans to this level would be sufficient to meet the benefit adequacy target for members earning less than \$60,000 annually.
- Exhibit 24 – This graph shows the extent to which the School plan meets the benefit adequacy target at retirement age 65, using the active member data for the School plan as of July 1, 1999. The data is summarized by five year intervals based on current age and service. Each box shows (from top to bottom) the percent the benefit is over or under the benefit adequacy target, the number of active members within the age/service interval, and the

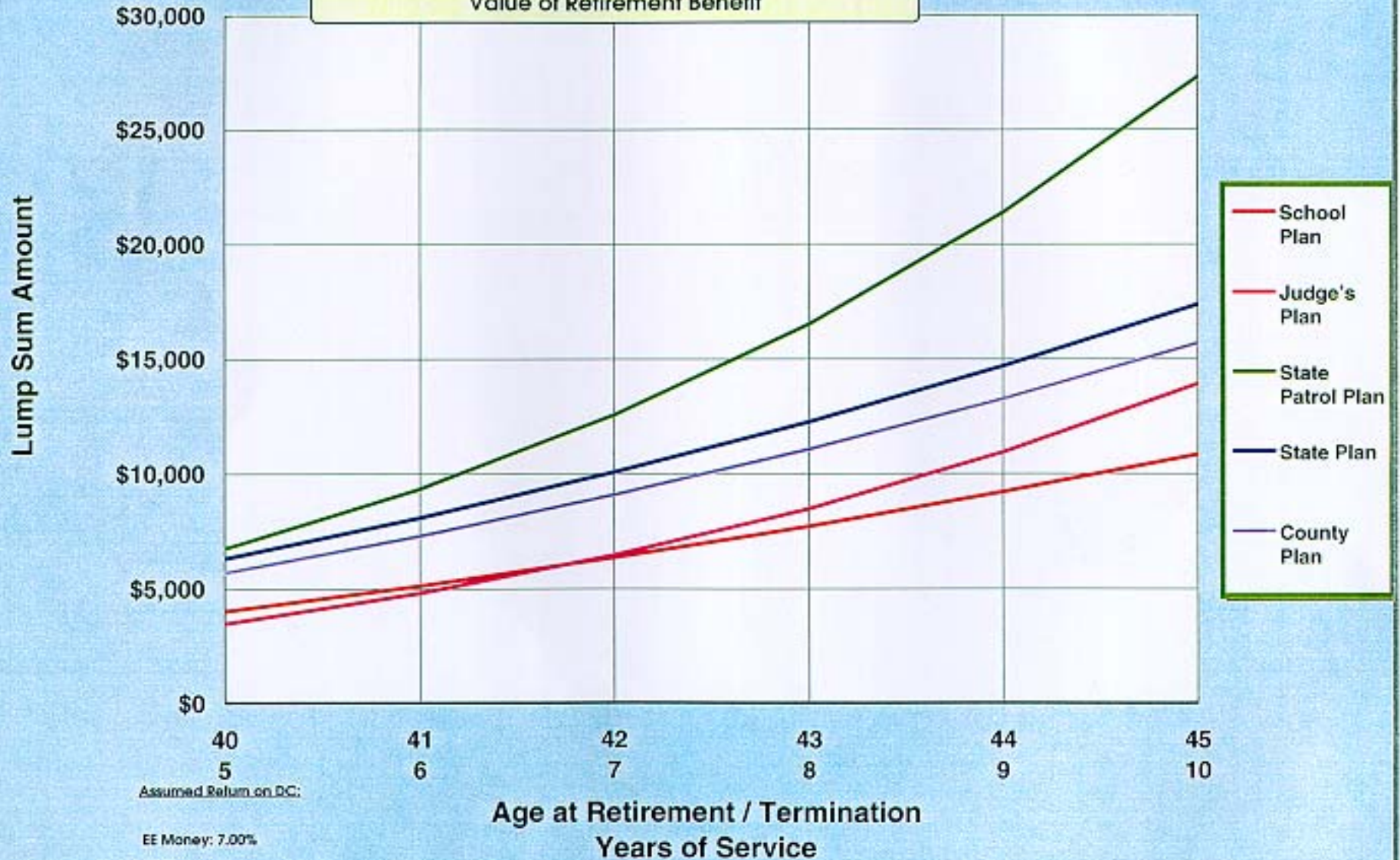
average annual salary for those members. The boxes are also color coded: green shades represent over target, orange and red shades represent under target. This graph indicates the benefit adequacy target will be met for members who accrue at least 25 years of service at age 65.

- Exhibit 25 – Same type of graph as Exhibit 24, except for the Judge’s plan. This graph shows that all members with at least 20 years of service at age 65 will meet the benefit adequacy target.
- Exhibit 26 – Same type of graph as Exhibit 24, except for the State Patrol plan. This graph shows that no members as of July 1, 1999 will meet the benefit adequacy target.
- Exhibit 27 – Same as Exhibit 26, with an increase in the service cap on the State Patrol benefit formula from 25 years to 30 years. The maximum benefit is increased from 75% to 90% of final average salary. This graph shows that all members with at least 30 years of service at age 55 will meet the benefit adequacy target with an increase in the service cap.

Nebraska PERS Benefit Review Study

Current Pay : \$40,000, Salary Increase Rate: Variable
Current Age: 65, Past Service: 30

Value of Retirement Benefit



Nebraska PERS Benefit Review Study

Current Pay : \$40,000, Salary Increase Rate: Variable
Current Age: 65, Past Service: 30

Value of Retirement Benefit

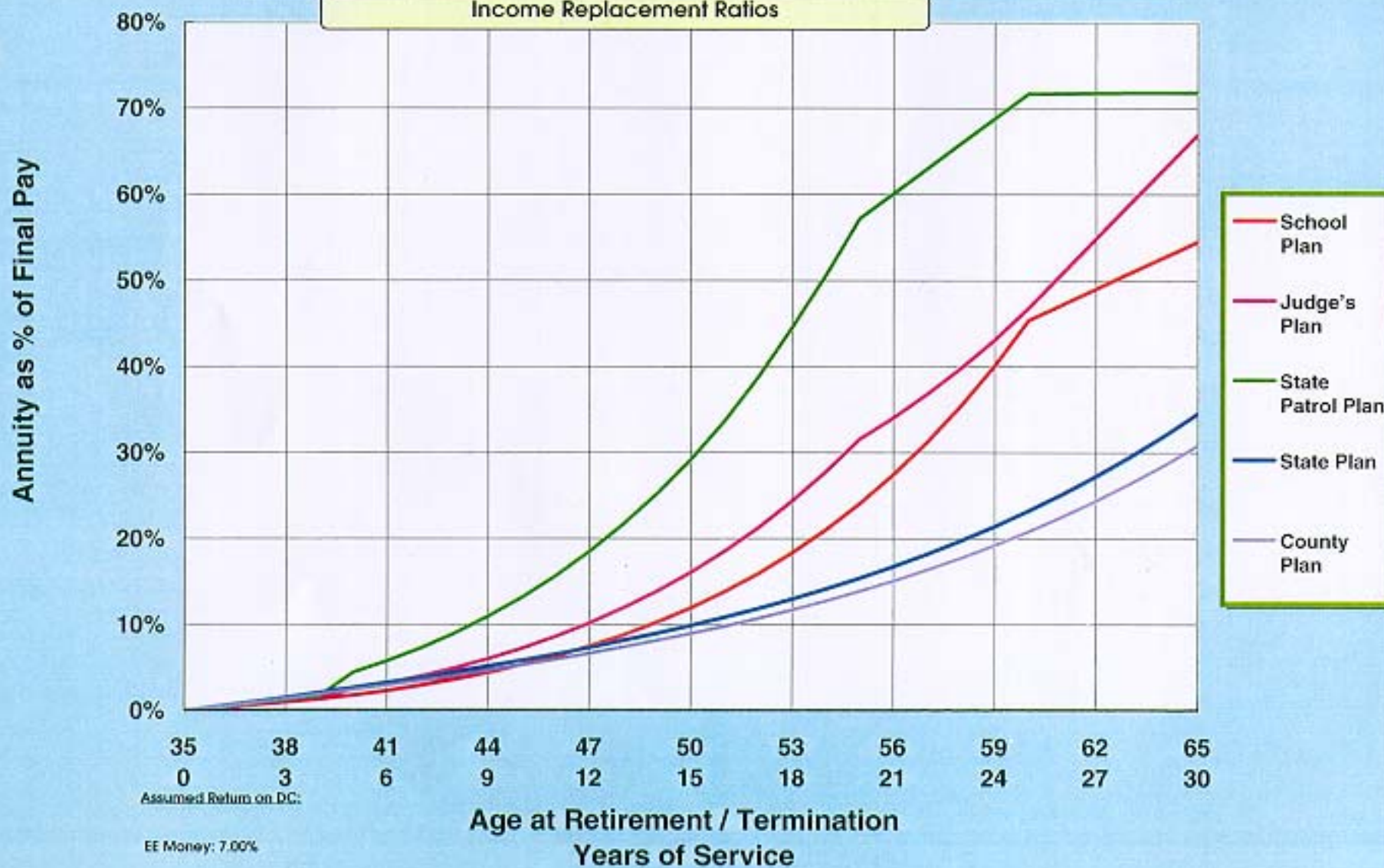


Nebraska PERS Benefit Review Study

Current Pay : \$40,000, Salary Increase Rate: Variable

Current Age: 65, Past Service: 30

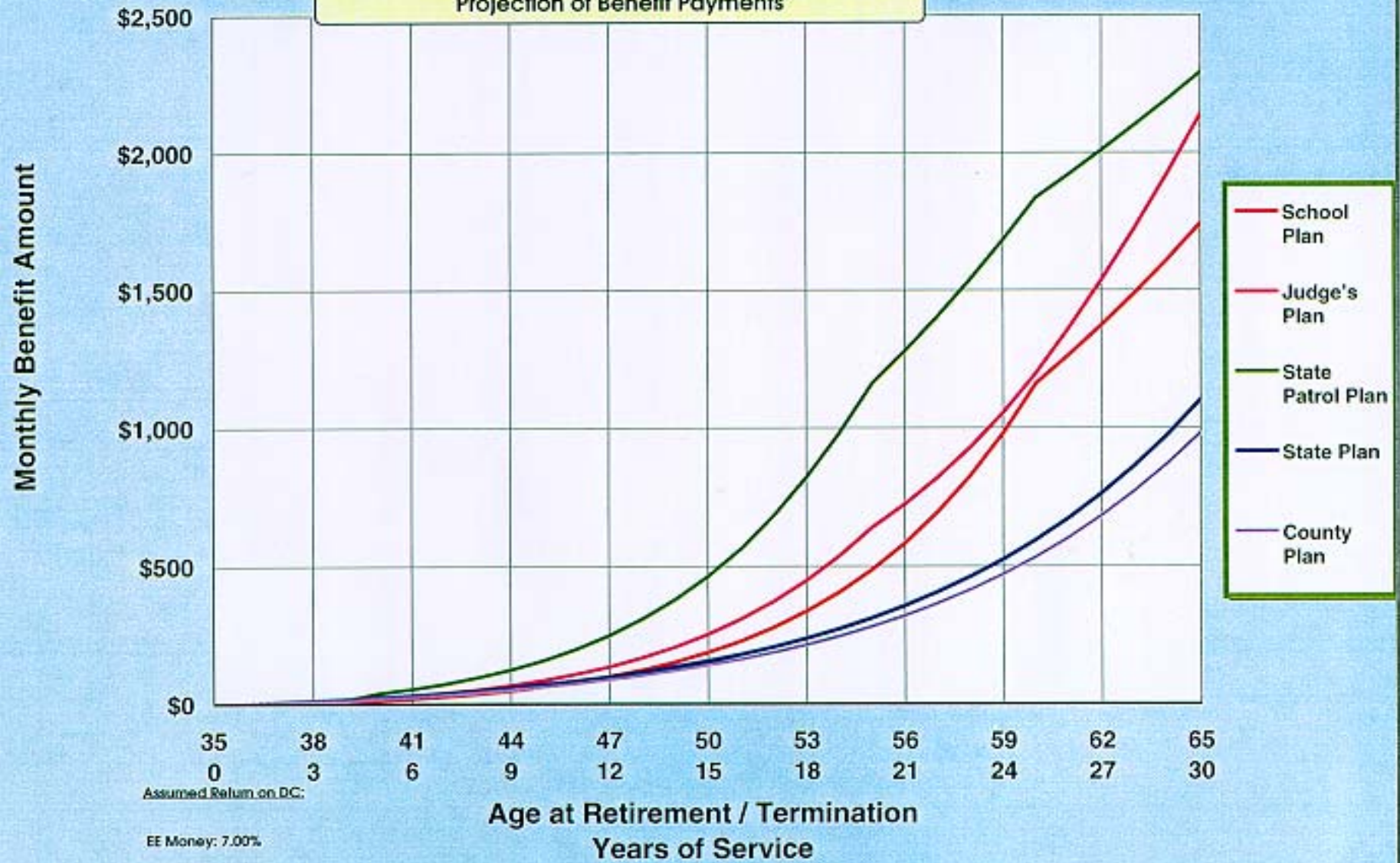
Income Replacement Ratios



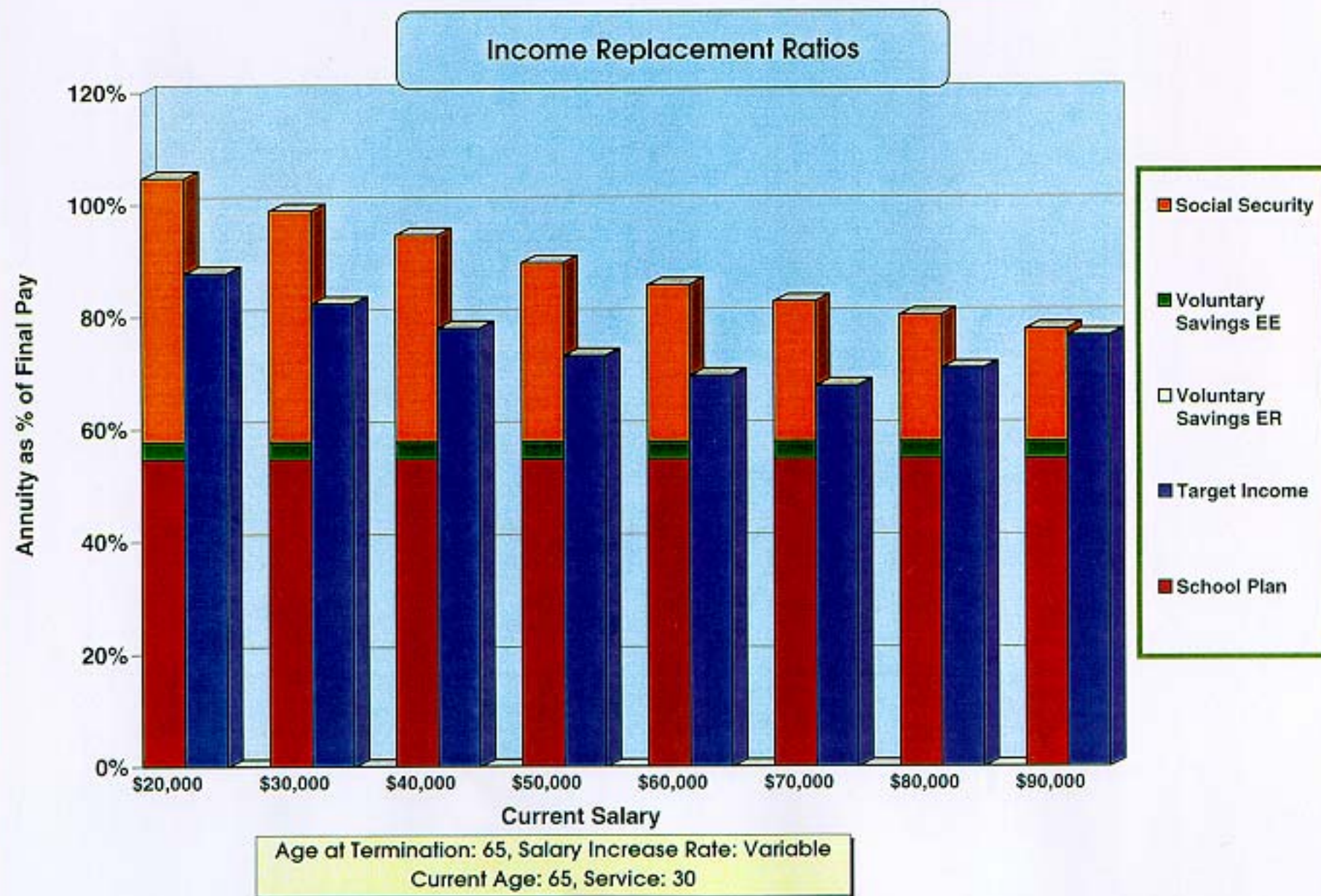
Nebraska PERS Benefit Review Study

Current Pay : \$40,000, Salary Increase Rate: Variable
Current Age: 65, Past Service: 30

Projection of Benefit Payments

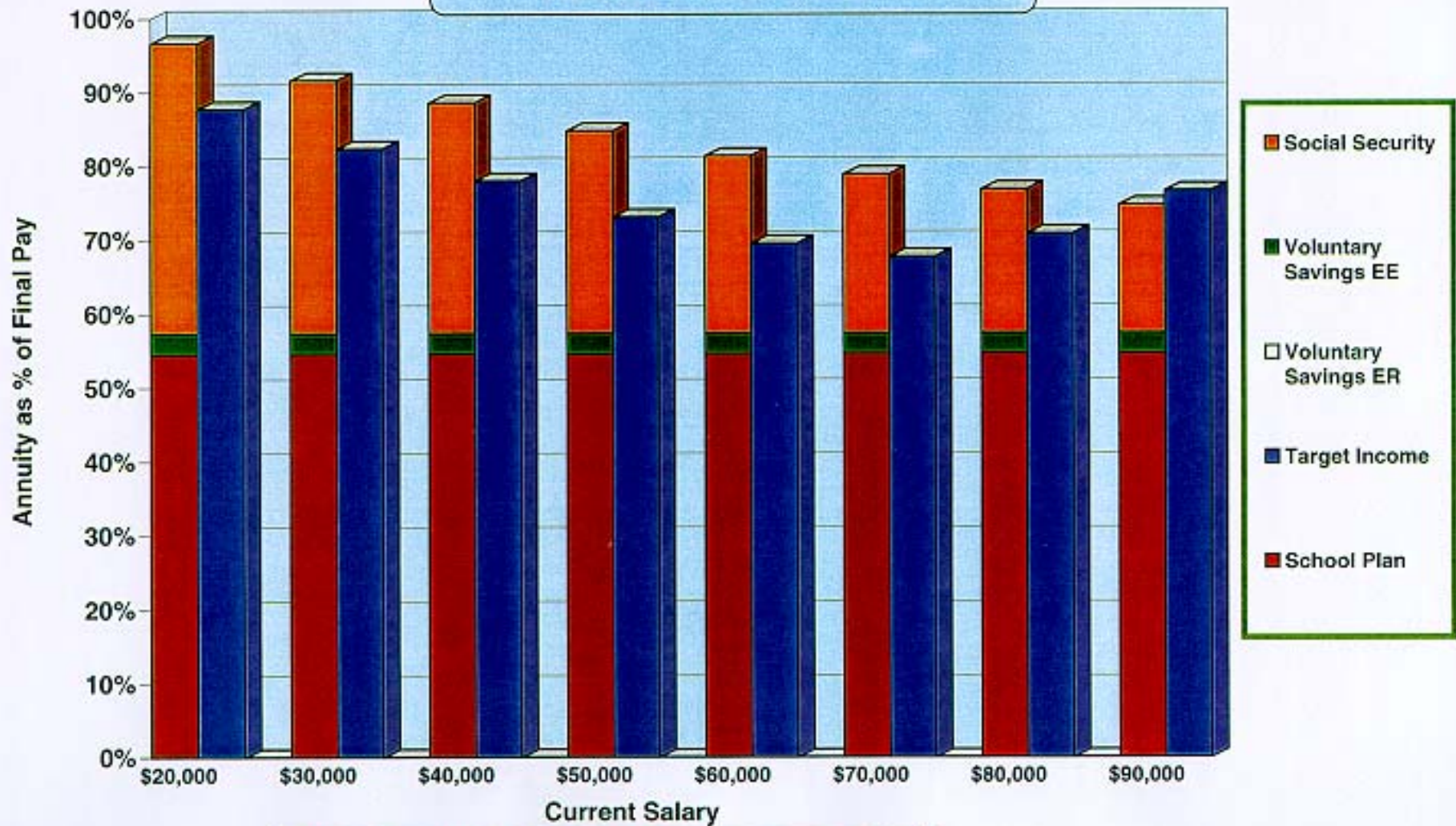


Nebraska PERS Benefit Review Study



Nebraska PERS Benefit Review Study

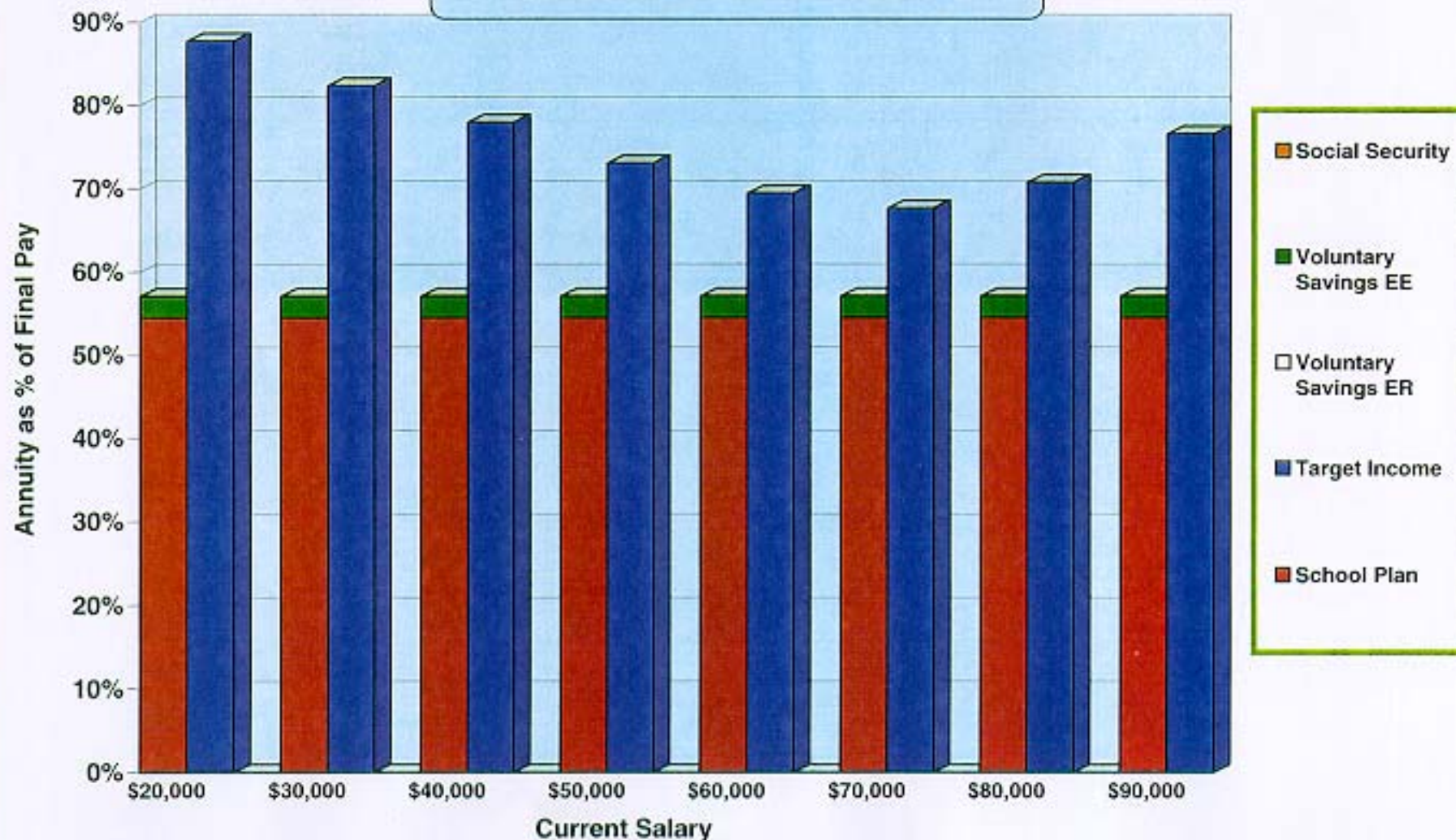
Income Replacement Ratios



Age at Termination: 62, Salary Increase Rate: Variable
Current Age: 62, Service: 30

Nebraska PERS Benefit Review Study

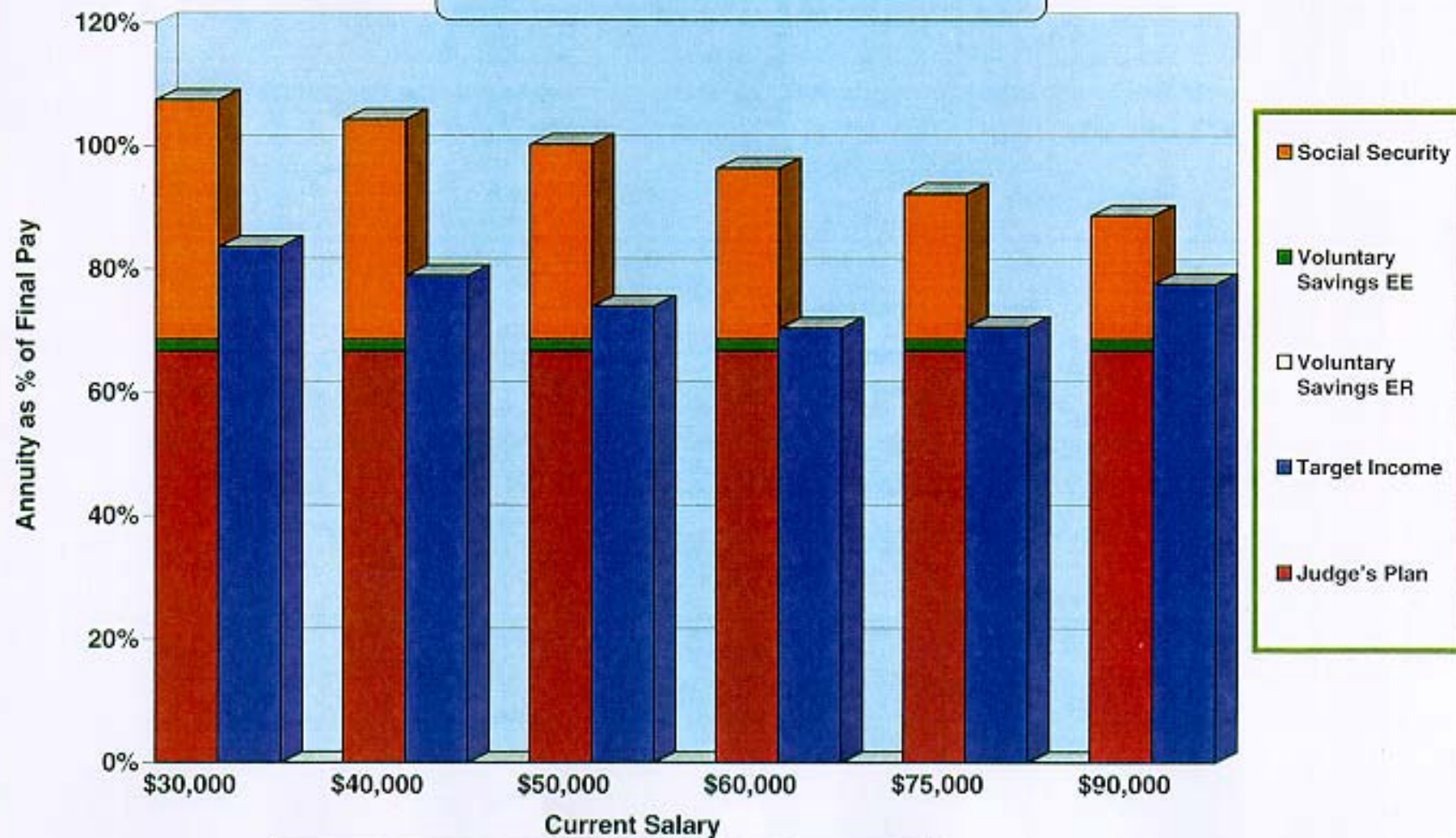
Income Replacement Ratios



Age at Termination: 60, Salary Increase Rate: Variable
Current Age: 60, Service: 30

Nebraska PERS Benefit Review Study

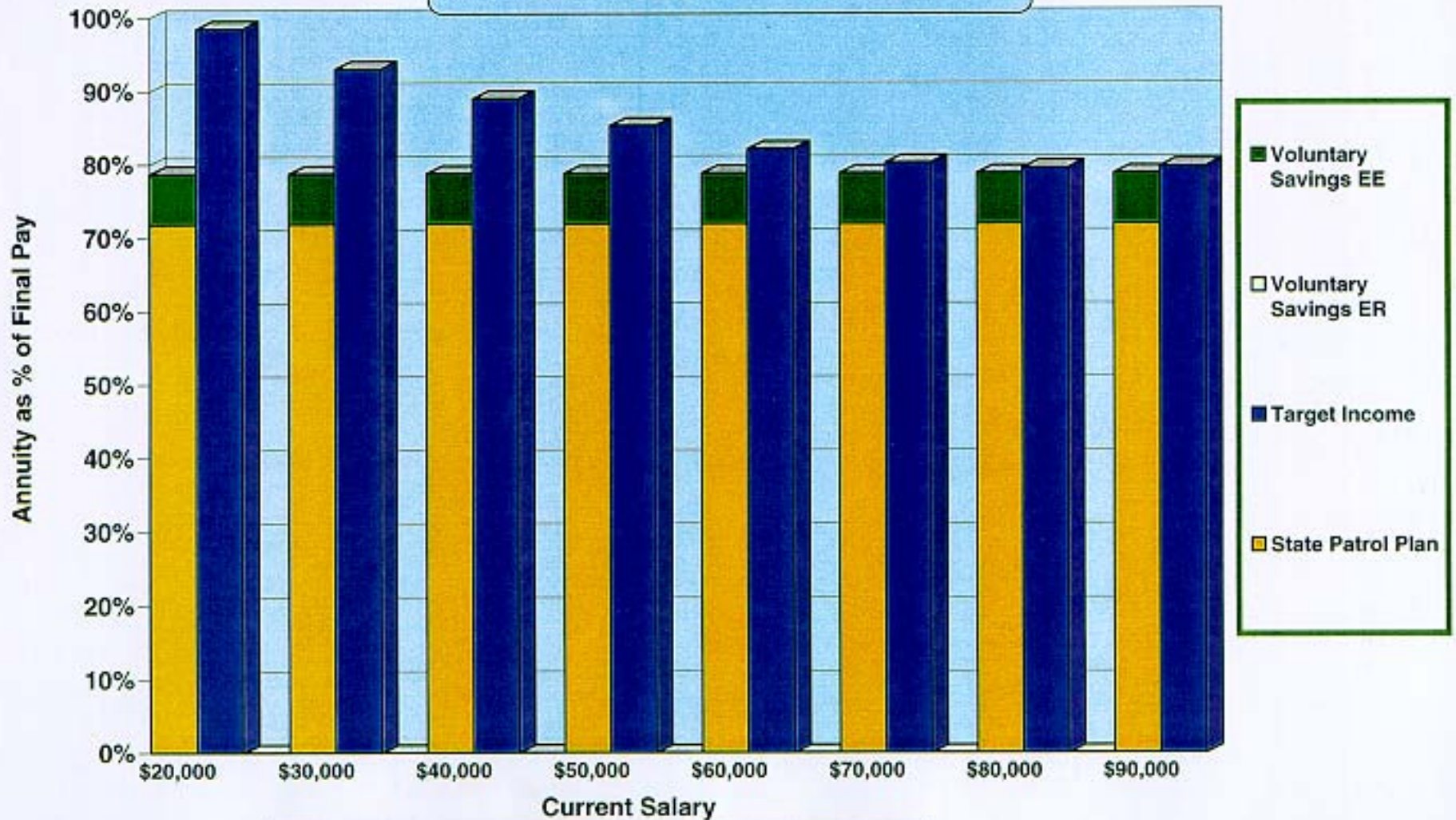
Income Replacement Ratios



Age at Termination: 65, Salary Increase Rate: 5.00%
Current Age: 65, Service: 20

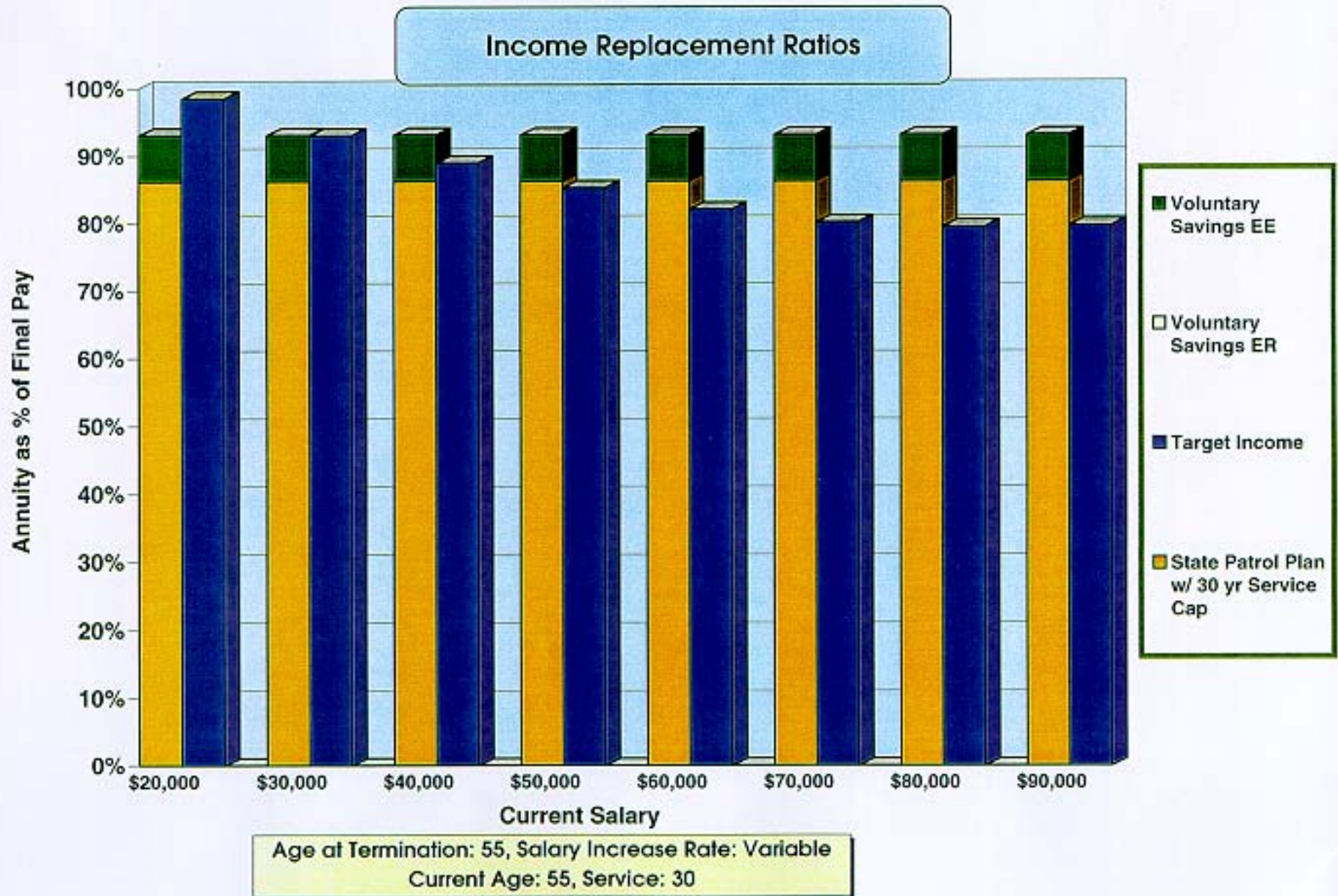
Nebraska PERS Benefit Review Study

Income Replacement Ratios



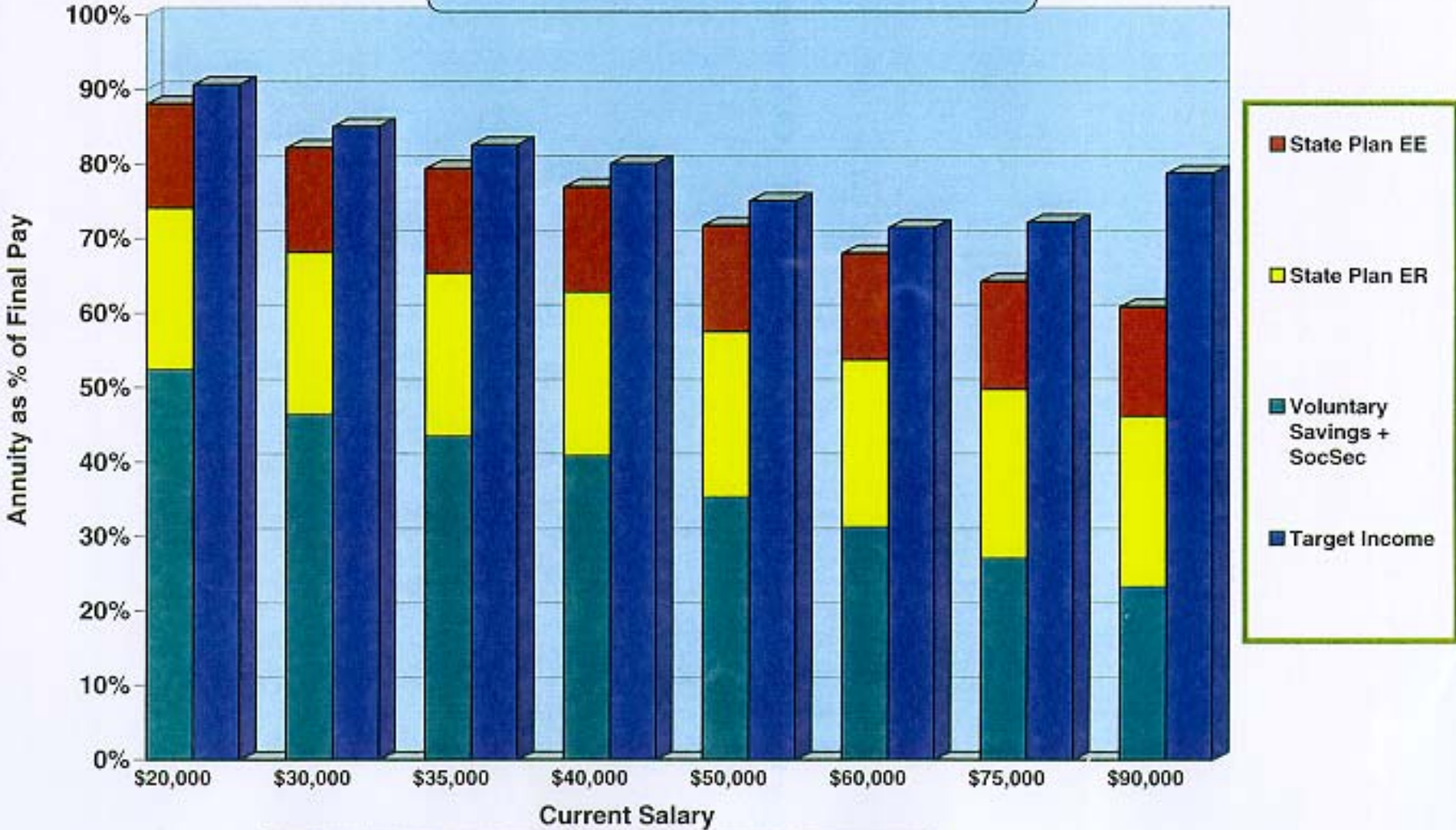
Age at Termination: 55, Salary Increase Rate: Variable
Current Age: 55, Service: 30

Nebraska PERS Benefit Review Study



Nebraska PERS Benefit Review Study

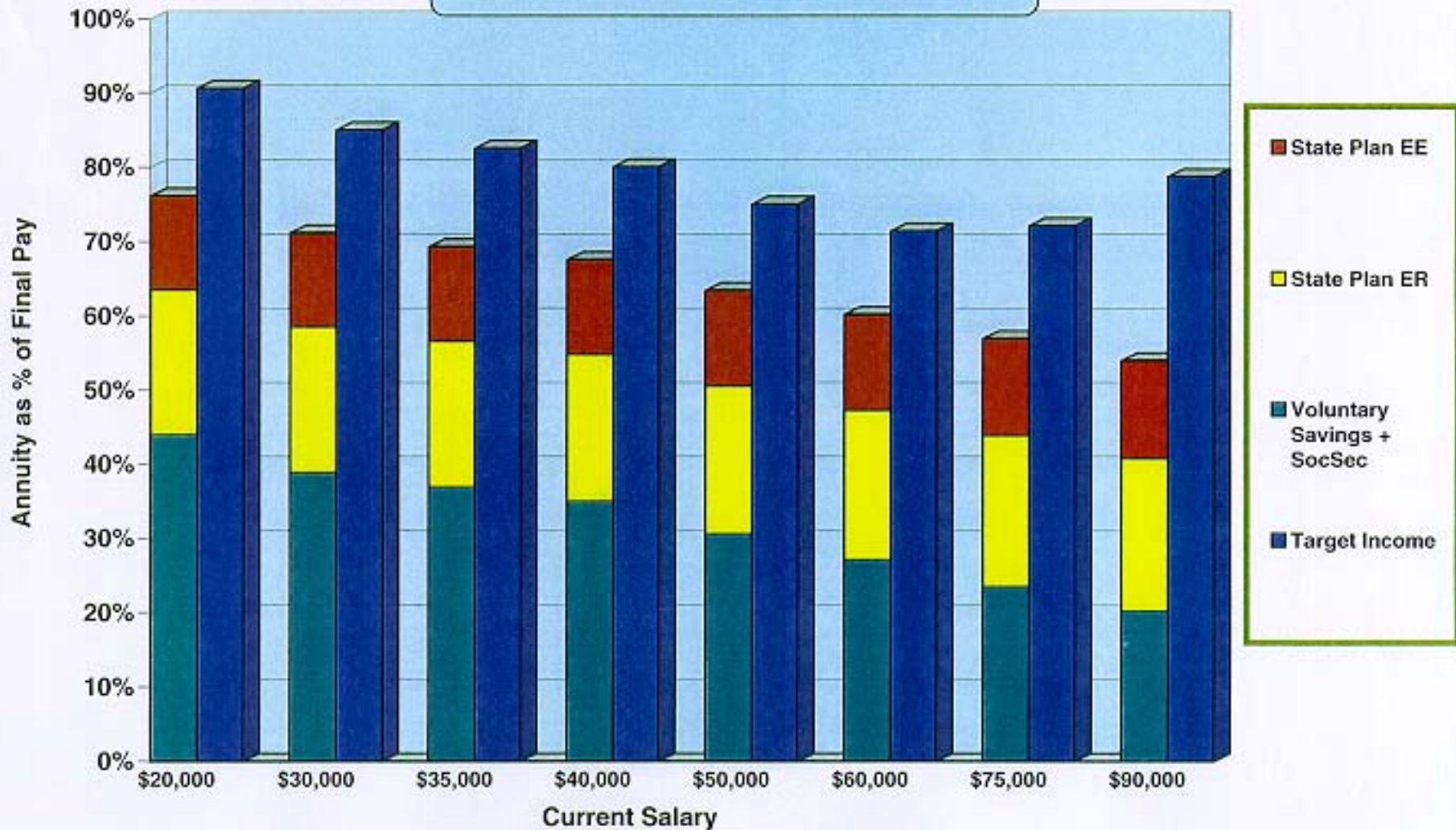
Income Replacement Ratios



Age at Termination: 65, Salary Increase Rate: Variable
Current Age: 65, Service: 30

Nebraska PERS Benefit Review Study

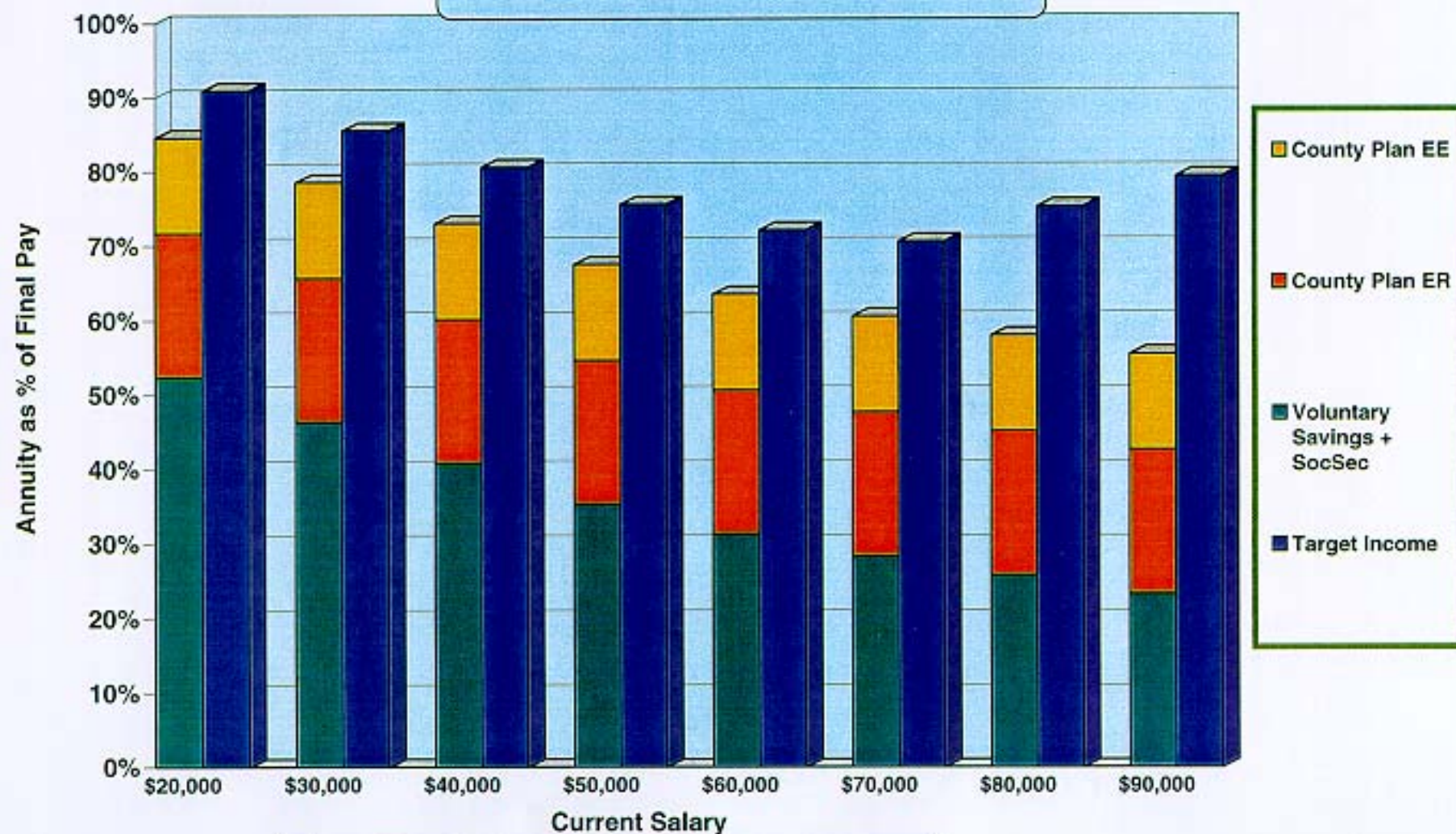
Income Replacement Ratios



Age at Termination: 62, Salary Increase Rate: Variable
Current Age: 62, Service: 30

Nebraska PERS Benefit Review Study

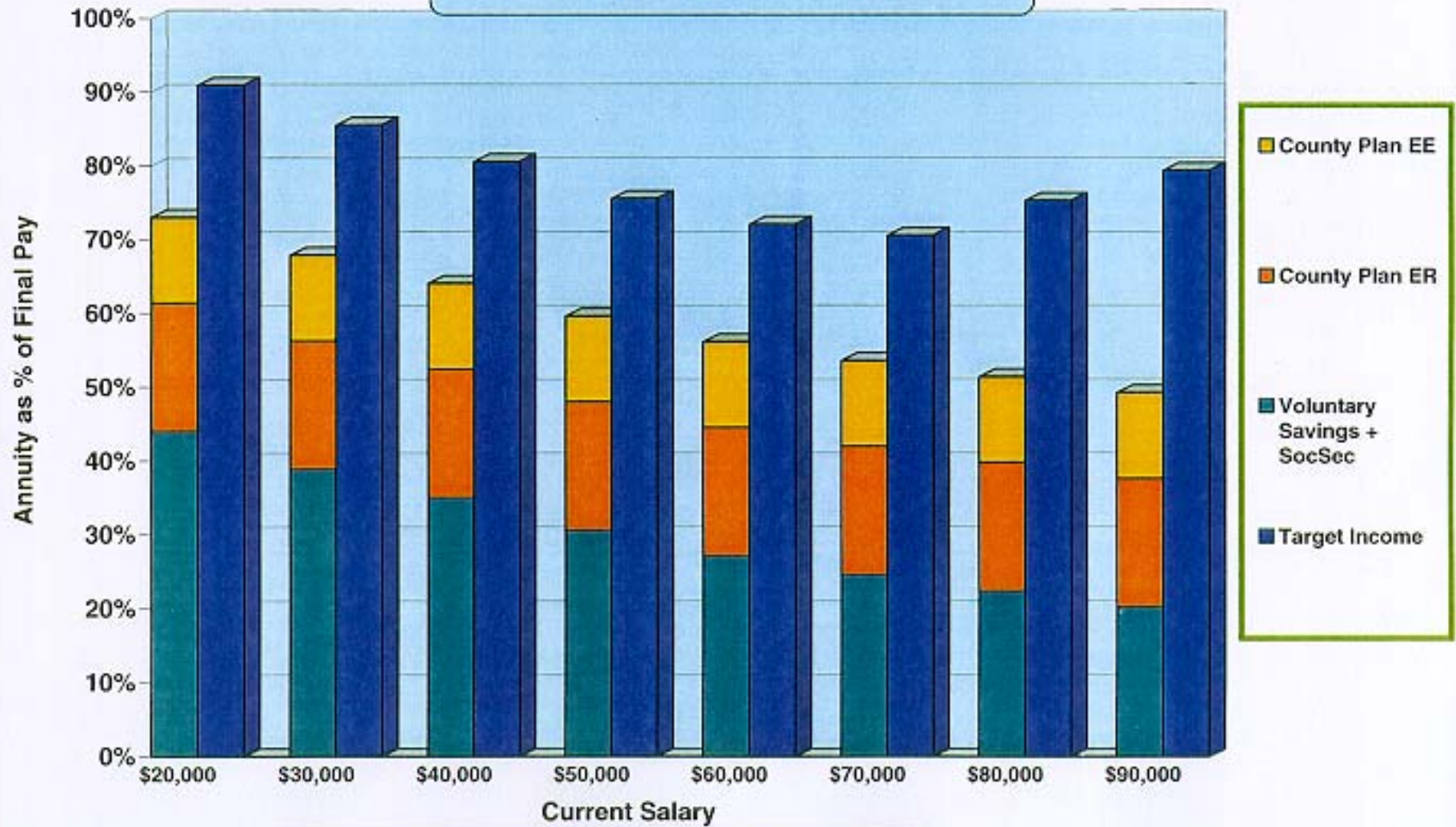
Income Replacement Ratios



Age at Termination: 65, Salary Increase Rate: Variable
Current Age: 65, Service: 30

Nebraska PERS Benefit Review Study

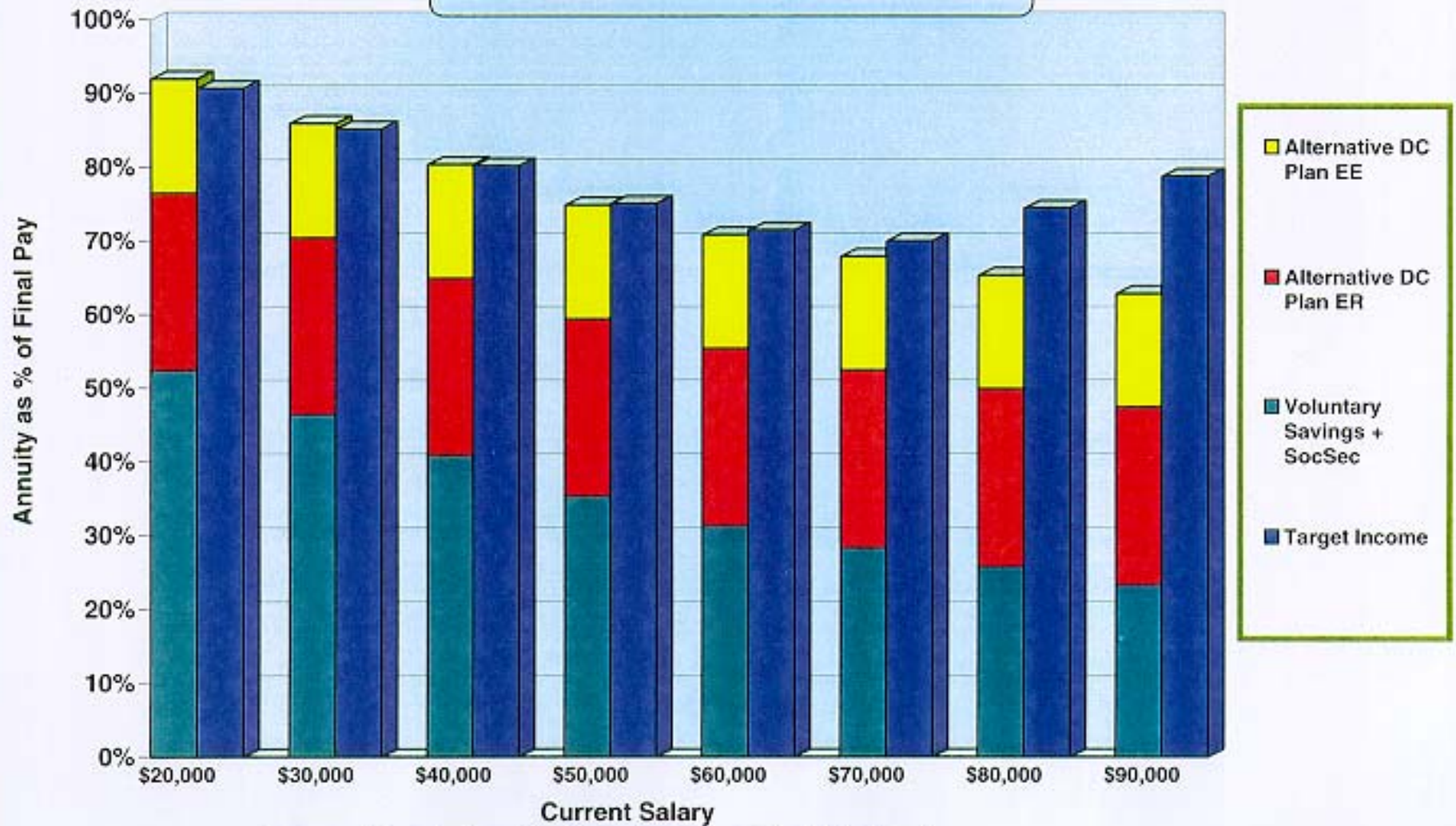
Income Replacement Ratios



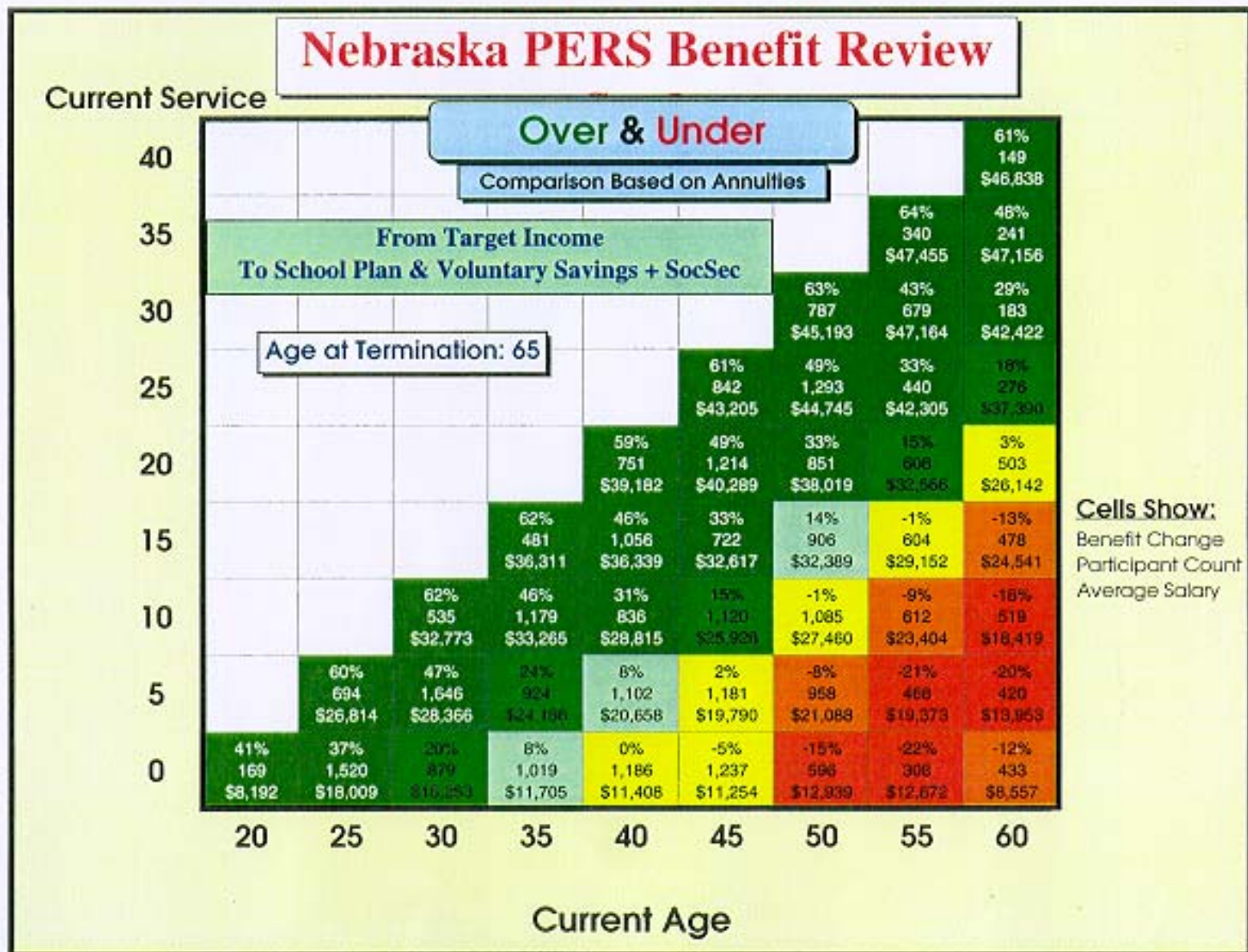
Age at Termination: 62, Salary Increase Rate: Variable
Current Age: 62, Service: 30

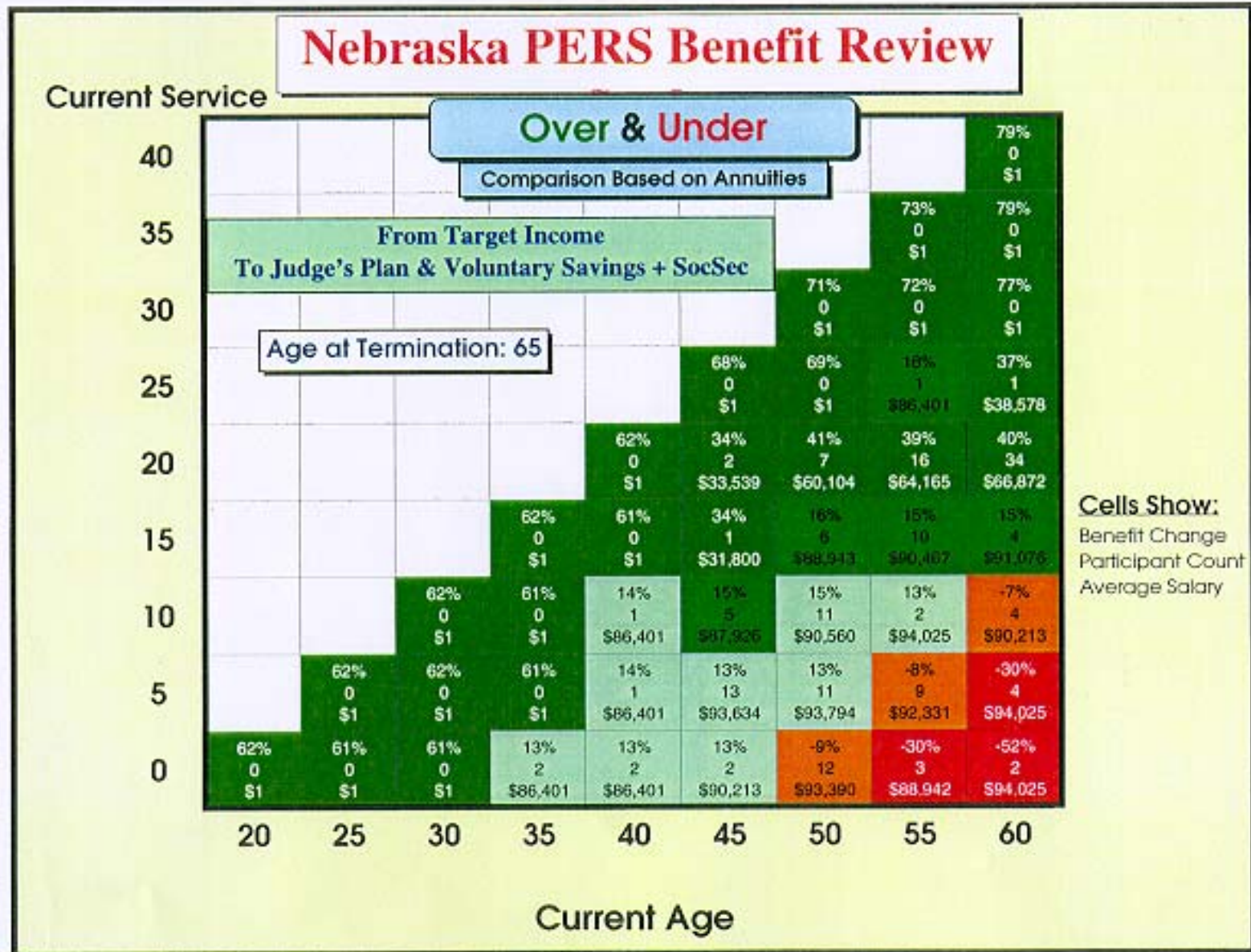
Nebraska PERS Benefit Review Study

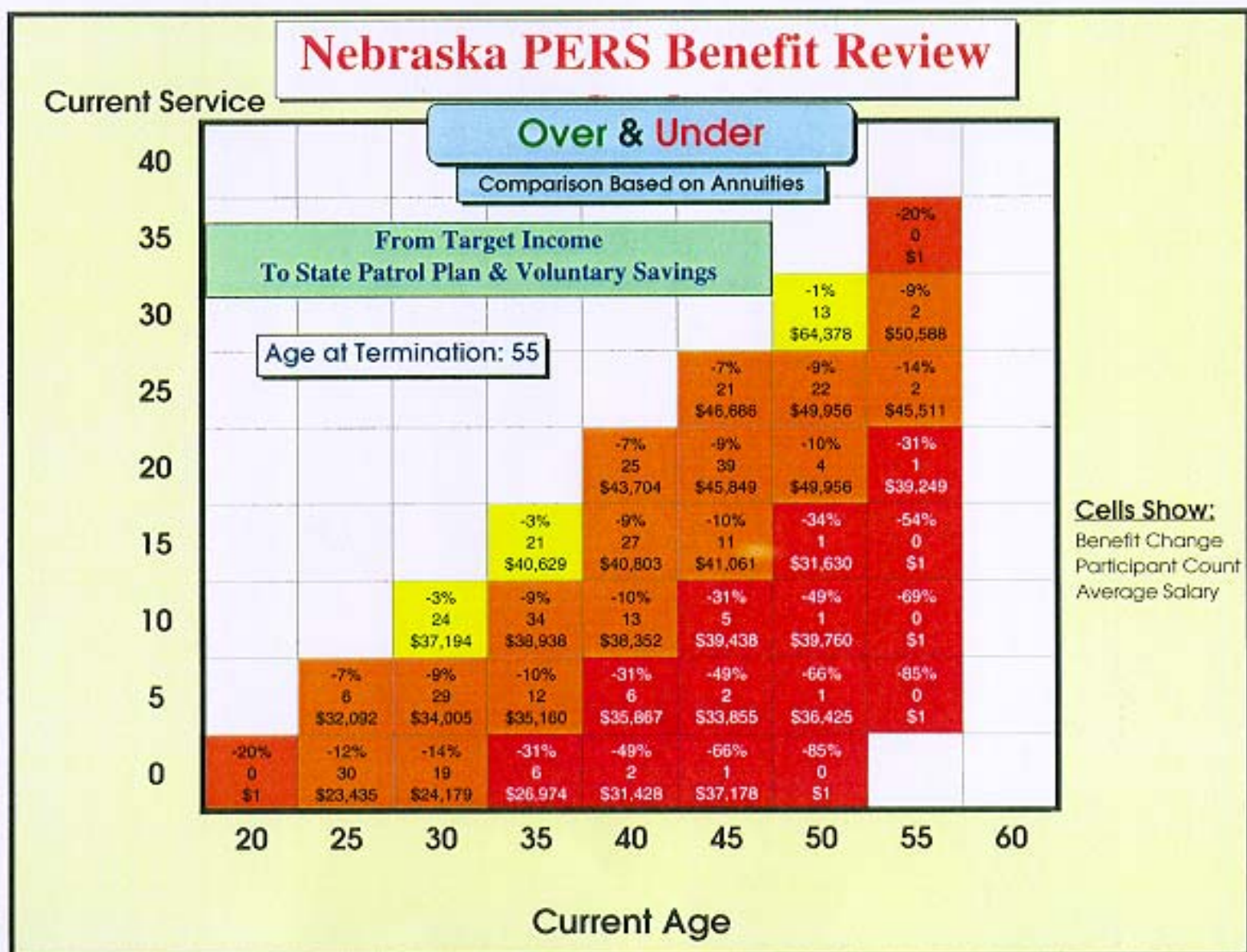
Income Replacement Ratios

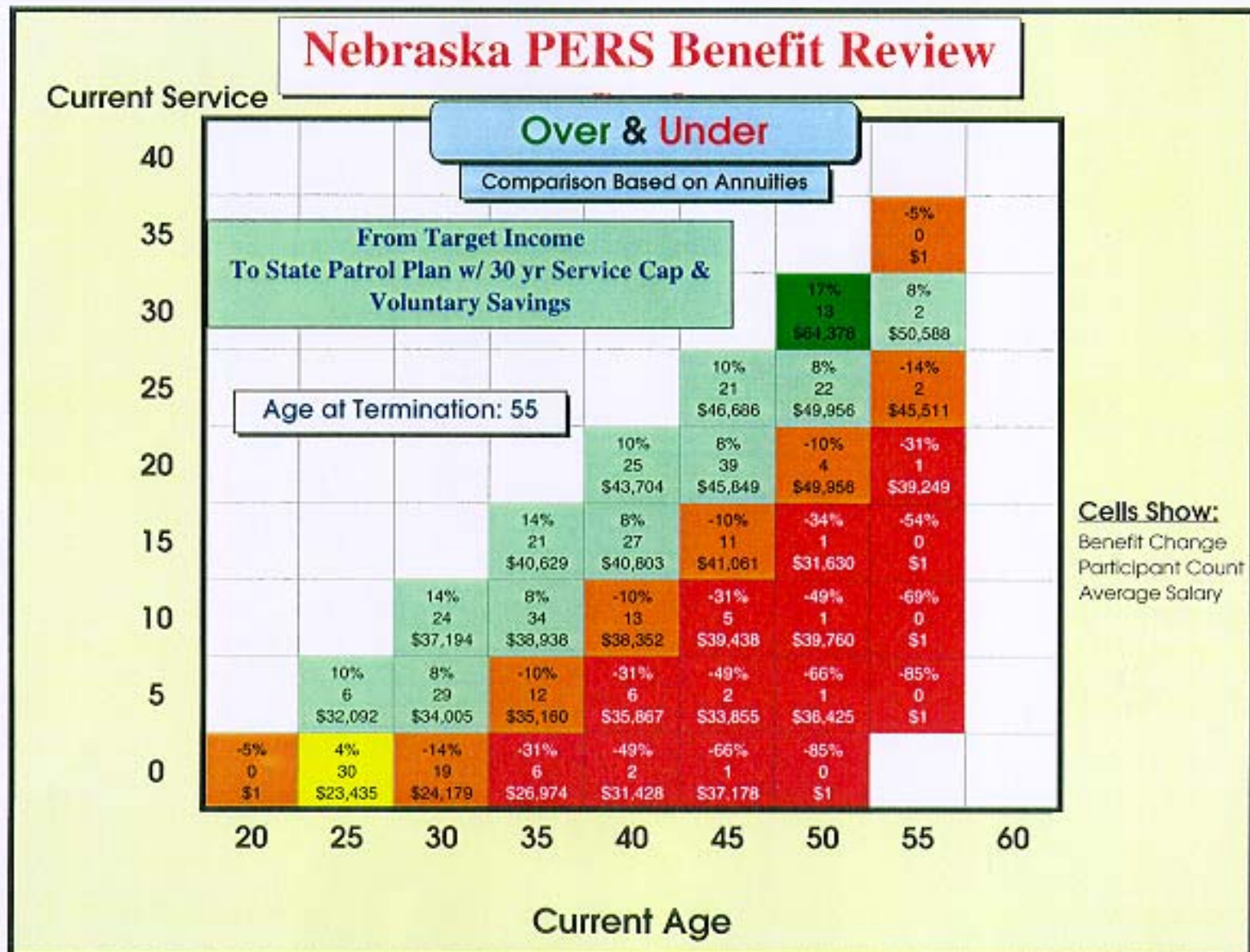


Age at Termination: 65, Salary Increase Rate: Variable
Current Age: 65, Service: 30









VI. Competitiveness of Retirement Systems

In order to evaluate and compare the overall structure of Nebraska's Retirement Systems to other statewide retirement systems and local public plans, it is necessary to analyze the major benefit features of each system in addition to the Normal Retirement Benefit. Summaries of the Major benefit provisions included in this study can be found in the Appendix.

Contiguous states to Nebraska and other states in the North Central Plains region were selected for the competitiveness comparison. These eight states included:

- Colorado
- Iowa
- Kansas
- Minnesota
- Missouri
- North Dakota
- South Dakota
- Wyoming

Local public employers included:

- Douglas County, NE
- Lancaster County, NE
- Lincoln Fire & Police
- Omaha Fire & Police
- Omaha Public Schools

The present value of benefits payable under each system for Normal Retirement, Early and Vested Retirement (where applicable), Post-retirement Death benefits, and COLA's were calculated for an average employee with the same demographic profile, using consistent assumptions as follows:

- Salary increases 5% per year.
- Inflation 3.5% per year.
- Mortality 1994 Group Annuity Mortality (50% male, 50% female)
- Investment Return
 - Defined benefit discount 8.0% per year
 - Defined contribution account
 - accumulation 7.0% per year

The present value of benefits payable under each system have been calculated for an average employee at Normal, Early and Vested retirement (where applicable) based on common assumptions of investment return, salary increases and inflation. Normal Retirement benefits were determined at the earliest unreduced age considering 30 years of service (except for Judges,

VI. Competitiveness of Retirement Systems

Continued

where 20 years was considered). Each System was then scored by each major benefit provided and for post-retirement survivor benefits and cost-of-living features.

Benefits provided under each system were ranked on a scale of 0 to 9 using the survey data. A score of 5 represents the median benefit value and deviations from the median were scored above and below 5 based on the ratio of each benefit value to the median. For example, a score of 6 represents a value 20% above the median.

Scores for the benefit practices of all systems and local plans included in the survey were weighted as follows:

| | Weight | | |
|-------------------------------|------------------------------|--------------|--------|
| | School, State, and County | State Patrol | Judges |
| Normal Retirement Benefit | 10 | 12 | 12 |
| Early Retirement Benefit | 3 | - | - |
| Vested Retirement Benefit | 2 | - | - |
| COLA | 3 | 5 | 4 |
| Post-Retirement Death Benefit | 2 | 3 | 4 |

These weightings approximate an expected value of each benefit provided

A score of 100 represents a median value was achieved for each benefit valued. The Early and Vested retirement benefits for Judicial and Public Safety employees are less significant, so separate analysis was not performed.

The value of Social Security benefits, where available, were included in the calculations of Normal, Early, and COLA retirement benefits. Voluntary retirement contributions were not considered in these totals.

VI. Competitiveness of Retirement Systems

Continued

As an example of the ranking methodology, consider the analysis of the benefits provided by the Nebraska State and Local Employees Retirement System shown in Exhibit 28.

| Benefit | Score (A) | Weighting (B) | Points based on Weighted Score* (A x B) (C) |
|-----------------------|----------------------|--------------------------|--|
| Normal | 4.4 | 10 | 44 |
| Early | 5.2 | 3 | 16 |
| Vested | 8.6 | 2 | 17 |
| COLA | 3.1 | 3 | 9 |
| Post Retirement Death | 5.5 | 2 | 11 |
| Total Points | | | 97 |

* Rounded to the nearest point.

A median score for each benefit would have produced a total of 100 points. The total scores were tabulated and each system was ranked highest to lowest in total points.

The ranking of each Nebraska System with practices of other states surveyed are shown in Exhibits 28 through 31, following.

The results of the ranking are as follows:

1. The defined contribution plan for Nebraska State employees ranks above median for Early and Post-retirement Death benefits, and significantly above median for Vested retirement benefits provided due to the faster accrual of benefits under defined contribution plans compared to defined benefit plans. Normal Retirement benefits and COLA provisions were below median. The overall result is a slightly below median ranking. Required employee contributions for retirement are average.
2. The Nebraska School Employees plan is above median for Post-retirement Death Benefits, and median for Normal and Early retirement. The Vested retirement and COLA provisions are below median, resulting in a total score that is slightly below median. Required employee contributions for retirement are above average.
3. The Nebraska County Employees defined contribution retirement plan ranks somewhat below the State plan because of lower total contributions. However, the above and below median components of the ranking follow the same pattern as the State plan, since both are

defined contribution plans. The overall result is a below median ranking and slightly below average required employee contributions toward retirement.

4. The Nebraska Judicial System ranks lower in the comparison with other systems than any Nebraska System. Although the Normal Retirement benefit is at the median, required employee contributions are substantially above average.
5. The Nebraska State Patrol System ranks above median, primarily due to above average Normal and Post-Retirement Death benefits and below average COLA benefits. Required employee contributions to retirement are below average.
6. As noted, the defined contribution plans for Nebraska State and County employees score very high at Vested retirement due to the faster accrual of benefits under these defined contribution plans compared to defined benefit plans. This generally accounts for the lower total score for School employees compared to State employees even though the Normal Retirement benefit for School employees is higher. A ranking of only Normal retirement benefits produces different results, but is a partial analysis of the value of the program. Also, the ranking for State and County employees assumes long term investment return of 7.0% per annum, but the actual results could vary widely.
7. The lack of a cost-of-living benefit after retirement is a significant comparative weakness of the State and County Nebraska Systems. Cost-of-living benefits are now available under the School, State Patrol, and Judges Systems, but the COLA provision still remains a weakness when compared to other systems. Other practices are generally competitive to strong.

Ranking of State and Local Systems

| Rank | State / Locale | Benefit Points | | | | | |
|------|---------------------------------------|----------------|-----------|-----------|----------|----------------|--------------|
| | | Normal | Early | Vested | COLA | Post-Ret Death | Total Points |
| 1 | Missouri | 69 | 14 | 7 | 19 | 16 | 125 |
| 2 | Colorado ¹ | 63 | 15 | 13 | 22 | 5 | 118 |
| 3 | South Dakota | 47 | 14 | 12 | 20 | 16 | 109 |
| 4 | Douglas Co., NE | 55 | 15 | 8 | 12 | 18 | 108 |
| 5 | WYOMING | 56 | 17 | 10 | 18 | 5 | 106 |
| 6 | Lancaster Co., NE ² | 49 | 17 | 18 | 9 | 11 | 104 |
| 7 | <i>Nebraska (State)</i> ² | 44 | 16 | 17 | 9 | 11 | 97 |
| 8 | Iowa | 46 | 17 | 10 | 19 | 2 | 94 |
| 9 | <i>Nebraska (County)</i> ² | 41 | 15 | 15 | 9 | 11 | 91 |
| 10 | North Dakota | 54 | 12 | 5 | 12 | 3 | 86 |
| 11 | Kansas | 51 | 13 | 4 | 12 | 2 | 82 |
| 12 | Minnesota | 36 | 15 | 8 | 18 | 2 | 79 |

Note: Retirement System's benefit plus Social Security were scored and then weighted as follows:

| | |
|-----------------------|----|
| Normal Retirement | 10 |
| Early Retirement | 3 |
| Vested Retirement | 2 |
| COLA | 3 |
| Post-Retirement Death | 2 |

Comparisons under each system are based on identical assumptions of salary growth, investment return and pay and service characteristics.

¹ Not participating in Social Security.

² Defined contribution plan.

Ranking of School Systems

| Rank | State / Locale | Benefit Points | | | | | |
|----------|-----------------------|----------------|-----------|----------|-----------|----------------|--------------|
| | | Normal | Early | Vested | COLA | Post-Ret Death | Total Points |
| 1 | Colorado ¹ | 59 | 17 | 15 | 19 | 9 | 119 |
| 2 | Missouri ¹ | 59 | 11 | 10 | 17 | 13 | 110 |
| 3 | South Dakota | 43 | 15 | 13 | 18 | 16 | 105 |
| 4 | Wyoming | 52 | 19 | 11 | 12 | 10 | 104 |
| 5 | Omaha Public Schools | 51 | 19 | 10 | 12 | 7 | 99 |
| 6 | Nebraska | 50 | 15 | 6 | 14 | 11 | 96 |
| 7 | Iowa | 43 | 19 | 11 | 17 | 4 | 94 |
| 8 | North Dakota | 50 | 13 | 6 | 11 | 11 | 91 |
| 9 | Kansas | 47 | 15 | 4 | 11 | 4 | 81 |
| 10 | Minnesota | 29 | 13 | 6 | 16 | 4 | 68 |

Note: Retirement System's benefit plus Social Security were scored and then weighted as follows:

| | |
|-----------------------|----|
| Normal Retirement | 10 |
| Early Retirement | 3 |
| Vested Retirement | 2 |
| COLA | 3 |
| Post-Retirement Death | 2 |

Comparisons under each system are based on identical assumptions of salary growth, investment return and pay and service characteristics.

¹ Not participating in Social Security.

Ranking of Judges Systems

| Rank | State | Benefit Points | | | |
|------|-----------------------|----------------|-----------|----------------|--------------|
| | | Normal | COLA | Post-Ret Death | Total Points |
| 1 | South Dakota | 83 | 22 | 36 | 141 |
| 2 | Wyoming | 78 | 21 | 32 | 131 |
| 3 | Missouri | 71 | 20 | 31 | 122 |
| 4 | Minnesota | 55 | 24 | 20 | 99 |
| 5 | Kansas | 75 | 12 | 9 | 96 |
| 6 | Colorado ¹ | 50 | 24 | 21 | 95 |
| 7 | Nebraska | 60 | 17 | 9 | 86 |
| 8 | North Dakota | 56 | 12 | 8 | 76 |
| 9 | Iowa | 48 | 20 | 6 | 74 |

Note: Retirement System's benefit plus Social Security were scored and then weighted as follows:

| | |
|-----------------------|----|
| Normal Retirement | 12 |
| COLA | 4 |
| Post-Retirement Death | 4 |

Comparisons under each system are based on identical assumptions of salary growth, investment return and pay and service characteristics.

¹ Not participating in Social Security.

Ranking of Public Safety Systems

| Rank | State / Locale | Benefit Points | | | |
|----------|---------------------------|----------------|-----------|----------------|--------------|
| | | Normal | COLA | Post-Ret Death | Total Points |
| 1 | South Dakota ¹ | 70 | 28 | 24 | 122 |
| 2 | Colorado | 67 | 38 | 7 | 112 |
| 3 | Nebraska | 67 | 14 | 27 | 108 |
| 4 | Omaha F&P | 61 | 15 | 26 | 102 |
| 5 | Wyoming | 60 | 26 | 15 | 101 |
| 6 | Missouri | 36 | 38 | 22 | 96 |
| 7 | North Dakota | 53 | 6 | 25 | 84 |
| 8 | Minnesota | 49 | 26 | 7 | 82 |
| 9 | Iowa ¹ | 51 | 25 | 3 | 79 |
| 10 | Kansas | 67 | 9 | 1 | 77 |
| 11 | Lincoln F&P ² | 41 | 6 | 2 | 49 |

Note: Retirement System's benefit plus Social Security were scored and then weighted as follows:

| | |
|-----------------------|----|
| Normal Retirement | 12 |
| COLA | 5 |
| Post-Retirement Death | 3 |

Comparisons under each system are based on identical assumptions of salary growth, investment return and pay and service characteristics.

¹ Participating in Social Security. All other systems do not participate in Social Security.

² Plan B benefits were used.

Public Retirement Practices for State and Local Employees

| Benefit Practice | Average Practice * | Current Nebraska Practice | Competitiveness Comparison |
|---|---|---|-----------------------------------|
| Member Contributions | 4% - 5% of Pay | 4% - 5% of Pay | Average |
| Employer Contributions | 8% - 9% of Pay | 6% - 7% of Pay | Below Average |
| Benefit Formula Multiplier | 1.8% | Account Balance | Below Average |
| Cost of Living Benefit <ul style="list-style-type: none"> • Ad Hoc or Automatic • Average Annual Increase | 84% of Plans 3.1% | None | Below Average |
| Special Early Retirement Eligibility Based on Age 25 at Employment | Age First Eligible for Special Early Retirement: <ul style="list-style-type: none"> • Earlier Than Age 50 1% • Ages 50-54 15% • Age 55 61% • Later Than Age 55 23% | None | Below Average |
| Regular Early Retirement Eligibility Based on Age 25 at Employment | Age First Eligible for Regular Early Retirement: <ul style="list-style-type: none"> • Earlier Than Age 50 11% • Ages 50-54 26% • Age 55 53% • Later Than Age 55 10% | Account Balance After 5 Years of Service | Below Average |
| Early Retirement Reduction Factor | 5% - 6% Per Year | No Subsidy | Below Average |
| Vesting Eligibility | 5 – 7 Years | 5 Years | Average |
| Vesting Benefit (Portability) | Vested Accrued Benefit or Refund of Employee Contributions With Interest | Vested Account Balance (Employee and Vested Employer Contributions) | Above Average |
| Post Retirement Death Benefit | Employee Contribution Refund Only | Remaining Account Balance | Above Average |

* Averages for Defined Benefit plans where applicable.

Public Retirement Practices for School Employees

| Benefit Practice | Average Practice | Current Nebraska Practice | Competitiveness Comparison |
|---|---|---|-----------------------------------|
| Member Contributions | 5% - 6% of Pay | 7.25% of Pay | Above Average |
| Employer Contributions | 8% - 10% of Pay | 8.62% of Pay * | Average |
| Benefit Formula Multiplier | 1.8% | 1.9% | Above Average |
| Final Average Salary Basis | 3-4 Year Average | 3 Year Average | Average |
| Cost of Living Benefit <ul style="list-style-type: none"> Ad Hoc or Automatic Average Annual Increase | 98% of Plans 3.8% | Automatic CPI up to 2.0%, 75% Purchasing Power Floor | Below Average |
| Special Early Retirement Eligibility Based on Age 25 at Employment | Age First Eligible for Special Early Retirement: <ul style="list-style-type: none"> Earlier Than Age 50 1% Ages 50-54 15% Age 55 61% Later Than Age 55 23% | Age First Eligible for Special Early Retirement: <ul style="list-style-type: none"> Age 55 and Rule of 85 35 Years of Service | Average |
| Regular Early Retirement Eligibility Based on Age 25 at Employment | Age First Eligible for Regular Early Retirement: <ul style="list-style-type: none"> Earlier Than Age 50 11% Ages 50-54 26% Age 55 53% Later Than Age 55 10% | Age First Eligible for Regular Early Retirement: <ul style="list-style-type: none"> Age 60 and 5 years of Service | Below Average |
| Early Retirement Reduction Factor | 5% - 6% Per Year | 3% Per Year | Above Average |
| Vesting Eligibility | 5 – 7 Years | 5 Years | Average |
| Vesting Benefit (Portability) | Accrued Benefit or Refund of Employee Contributions With Interest | Accrued Benefit or Refund of Employee Contributions With Interest | Average |
| Post Retirement Death Benefit | Employee Contribution Refund Only | 5 Years Certain | Above Average |

* Includes .7% of pay State contribution.

Public Retirement Practices for Judicial Employees

| Benefit Practice | Average Practice | Current Nebraska Practice | Competitiveness Comparison |
|--|--|---|----------------------------|
| Member Contributions | 4% - 5% of Pay | 6% of Pay | Above Average |
| Employer Contributions | 14% - 16% of Pay | 5.2% of Pay | Below Average |
| Benefit Formula Multiplier | 3% - 4% * | 3.5% | Average |
| Final Average Salary Basis | 3 Year Average | 3 Year Average | Average |
| Maximum Benefit <ul style="list-style-type: none"> % of Plans with Maximum benefit Average Maximum Benefit | 80% 71% of Final Average Pay | 70% of Final Average Pay | Average |
| Cost of Living Benefit <ul style="list-style-type: none"> Ad Hoc or Automatic Average Annual Increase | 75% of Plans 3.8% | Automatic CPI up to 2.0%, 75% Purchasing Power Floor | Below Average |
| Special Early Retirement Eligibility Based on Age 42 at Employment | Age First Eligible for Special Early Retirement: <ul style="list-style-type: none"> Age 52 2% Age 55 4% Age 60 29% Age 62 31% Age 64 2% Age 65 32% | Age First Eligible for Special Early Retirement: <ul style="list-style-type: none"> Age 55 and 5 years of service, but actuarially reduced (no subsidy). | Below Average |
| Post Retirement Death Benefit | Automatic 50% Survivor Benefit | Life Annuity with Contribution Refund | Below Average |

* Average Multiplier applied to limited credited service (e.g. 18 years).

Public Retirement Practices for Public Safety Employees

| Benefit Practice | Average Practice | Current Nebraska Practice | Competitiveness Comparison |
|---|--|--|----------------------------|
| Member Contributions | 6% - 7% of Pay | 11% of Pay | Above Average |
| Employer Contributions | 15% - 17% of Pay | 11% of Pay | Below Average |
| Benefit Formula Multiplier | 2.3% if in Social Security * 2.4% if not in Social Security | 3.0% | Above Average |
| Final Average Salary Basis | 3 Year Average | 3 Year Average | Average |
| Cost of Living Benefit <ul style="list-style-type: none"> Ad Hoc or Automatic Average Annual Increase | 72% of Plans 2.7% | Automatic CPI up to 2.0%, 60% Purchasing Power Floor | Below Average |
| Special Early Retirement Eligibility Based on Age 25 at Employment | Age First Eligible for Special Early Retirement: <ul style="list-style-type: none"> Earlier Than Age 45 -- Ages 45-49 4% Age 50 18% Age 51-55 35% Later Than Age 55 43% | Age First Eligible for Special Early Retirement: <ul style="list-style-type: none"> 25 years of service Age 55 and 10 Years of service | Above Average |
| Regular Early Retirement Eligibility Based on Age 25 at Employment | Age First Eligible for Regular Early Retirement: <ul style="list-style-type: none"> Earlier Than Age 45 9% Ages 45-49 14% Age 50 35% Age 51-55 37% Later Than Age 55 5% | Age First Eligible for Regular Early Retirement: <ul style="list-style-type: none"> Age 50 and 10 years of Service | Average |
| Early Retirement Reduction Factor | 4.9% Per Year | 6 ² / ₃ % Per Year | Below Average |
| Full Vesting Eligibility | 9.6 Years | 10 Years | Average |
| Post Retirement Death Benefit | Employee Contribution Refund Only | Automatic 75% Survivor Benefit | Above Average |

* Employees participate in Social Security in 32% of survey plans.

VIII. Contribution Rate Comparison for Regional Retirement Systems

The exhibits in this section summarize the contribution rates to the regional statewide systems and other local public plans included in our survey. Contribution rates are split between employee and employer, with and without Social Security. Contributions to medical programs and Medicare have been excluded. Systems for each employee type were then sorted by total contribution, including Social Security where applicable. Systems not in Social Security tended to have lower total contributions, indicating a more efficient retirement program is achieved without Social Security coverage. National averages from the recent GFOA survey have been included for comparison to the regional average (excluding Social Security).

VIII. Contribution Rate Comparison

Exhibit 36

State and Local Retirement Systems

| Rank | State / Locale | Without Social Security | | | 6.2% With Social Security | | | Difference from Average |
|------|---|-------------------------|--------------|---------------|------------------------------|---------------|---------------|-------------------------------|
| | | Employee | Employer | Total | Employee | Employer | Total | |
| 1 | Lancaster Co., NE* | 5.20% | 7.80% | 13.00% | 11.40% | 14.00% | 25.40% | 3.20% |
| 2 | Missouri | 0.00% | 11.91% | 11.91% | 6.20% | 18.11% | 24.31% | 2.11% |
| 3 | Nebraska (State)* | 4.53% | 7.07% | 11.60% | 10.73% | 13.27% | 24.00% | 1.80% |
| 4 | Wyoming | 5.57% | 5.68% | 11.25% | 11.77% | 11.88% | 23.65% | 1.45% |
| 5 | Douglas Co., NE | 5.50% | 5.50% | 11.00% | 11.70% | 11.70% | 23.40% | 1.20% |
| 6 | Nebraska (County)* | 4.00% | 6.00% | 10.00% | 10.20% | 12.20% | 22.40% | 0.20% |
| 7 | South Dakota | 5.00% | 5.00% | 10.00% | 11.20% | 11.20% | 22.40% | 0.20% |
| 8 | Minnesota - Local | 4.75% | 5.18% | 9.93% | 10.95% | 11.38% | 22.33% | 0.13% |
| 9 | Iowa | 3.70% | 5.75% | 9.45% | 9.90% | 11.95% | 21.85% | -0.35% |
| 10 | Kansas | 4.00% | 4.19% | 8.19% | 10.20% | 10.39% | 20.59% | -1.61% |
| 11 | North Dakota | 4.00% | 4.12% | 8.12% | 10.20% | 10.32% | 20.52% | -1.68% |
| 12 | Minnesota - State | 4.00% | 4.00% | 8.00% | 10.20% | 10.20% | 20.40% | -1.80% |
| 13 | Colorado | 8.00% | 9.30% | 17.30% | 8.00% | 9.30% | 17.30% | -4.90% |
| | Average | 4.48% | 6.27% | 10.75% | 10.20% | 11.99% | 22.20% | |
| | National Average (GFOA Survey) | 4.16% | 8.07% | 12.23% | | | | |

* Defined contribution plan.

School Retirement Systems

| Rank | State / Locale | Without Social Security | | | 6.2% With Social Security | | | Difference from Average |
|------|---|-------------------------|--------------------|---------------|------------------------------|---------------|---------------|-------------------------------|
| | | Employee | Employer | Total | Employee | Employer | Total | |
| 1 | <i>Nebraska</i> | 7.25% | 8.62% ¹ | 15.87% | 13.45% | 14.82% | 28.27% | 5.10% |
| 2 | North Dakota | 7.75% | 7.75% | 15.50% | 13.95% | 13.95% | 27.90% | 4.73% |
| 3 | Omaha Public Schools | 6.30% | 7.60% ² | 13.90% | 12.50% | 13.80% | 26.30% | 3.13% |
| 4 | Wyoming | 5.57% | 5.68% | 11.25% | 11.77% | 11.88% | 23.65% | 0.48% |
| 5 | Minnesota | 5.00% | 5.00% | 10.00% | 11.20% | 11.20% | 22.40% | -0.77% |
| 6 | South Dakota | 5.00% | 5.00% | 10.00% | 11.20% | 11.20% | 22.40% | -0.77% |
| 7 | Iowa | 3.70% | 5.75% | 9.45% | 9.90% | 11.95% | 21.85% | -1.32% |
| 8 | Missouri | 10.50% | 10.50% | 21.00% | 10.50% | 10.50% | 21.00% | -2.17% |
| 9 | Kansas | 4.00% | 4.19% | 8.19% | 10.20% | 10.39% | 20.59% | -2.58% |
| 10 | Colorado | 8.00% | 9.30% | 17.30% | 8.00% | 9.30% | 17.30% | -5.87% |
| | Average | 6.31% | 6.94% | 13.25% | 11.27% | 11.90% | 23.17% | |
| | National Average (GFOA survey) | 6.81% | 9.63% | 16.44% | | | | |

¹ Includes 0.7% of pay state contribution and Purchasing Power Stabilization Fund contribution (0.6%).

² Includes 1.3% of pay state contribution for plan year ending August 31, 1999.

VIII. Contribution Rate Comparison

Exhibit 38

Judges Retirement Systems

| Rank | State / Local | Without Social Security | | | 6.2% With Social Security | | | Difference from Average |
|------|--|-------------------------|---------------|---------------|------------------------------|---------------|---------------|-------------------------------|
| | | Employee | Employer | Total | Employee | Employer | Total | |
| 1 | Missouri | 0.00% | 51.80% | 51.80% | 6.20% | 58.00% | 64.20% | 33.84% |
| 2 | Minnesota | 8.00% | 20.50% | 28.50% | 14.20% | 26.70% | 40.90% | 10.54% |
| 3 | Kansas | 6.00% | 14.38% | 20.38% | 12.20% | 20.58% | 32.78% | 2.42% |
| 4 | North Dakota | 5.00% | 14.52% | 19.52% | 11.20% | 20.72% | 31.92% | 1.56% |
| 5 | South Dakota | 9.00% | 9.00% | 18.00% | 15.20% | 15.20% | 30.40% | 0.04% |
| 6 | Wyoming | 9.22% | 5.68% | 14.90% | 15.42% | 11.88% | 27.30% | -3.06% |
| 7 | Nebraska | 6.00% | 5.20% | 11.20% | 12.20% | 11.40% | 23.60% | -6.76% |
| 8 | Iowa | 4.00% | 5.75% | 9.75% | 10.20% | 11.95% | 22.15% | -8.21% |
| 9 | Colorado | 8.00% | 12.90% | 20.90% | 8.00% | 12.90% | 20.90% | -9.46% |
| | Average | 6.14% | 15.53% | 21.66% | 10.76% | 19.60% | 30.36% | |
| | National Average (GFOA Survey) ¹ | 4.28% | 15.87% | 20.15% | | | | |

¹ Mostly judges, but also includes elected officials.

VIII. Contribution Rate Comparison

Exhibit 39

Public Safety Retirement Systems

| Rank | State / Local | Without Social Security | | | 6.2% With Social Security | | | Difference from Average |
|------|---|-------------------------|---------------|---------------|------------------------------|---------------|---------------|-------------------------------|
| | | Employee | Employer | Total | Employee | Employer | Total | |
| 1 | South Dakota | 8.00% | 8.00% | 16.00% | 14.20% | 14.20% | 28.40% | 5.27% |
| 2 | Omaha F&P | 10.89% | 16.50% | 27.39% | 10.89% | 16.50% | 27.39% | 4.26% |
| 3 | North Dakota | 10.30% | 16.70% | 27.00% | 10.30% | 16.70% | 27.00% | 3.87% |
| 4 | Iowa | 5.69% | 8.54% | 14.23% | 11.89% | 14.74% | 26.63% | 3.50% |
| 5 | Nebraska | 11.00% | 13.80% | 24.80% | 11.00% | 13.80% | 24.80% | 1.67% |
| 6 | Wyoming | 11.02% | 11.33% | 22.35% | 11.02% | 11.33% | 22.35% | -0.78% |
| 7 | Colorado | 10.00% | 12.00% | 22.00% | 10.00% | 12.00% | 22.00% | -1.13% |
| 8 | Missouri | 0.00% | 22.00% | 22.00% | 0.00% | 22.00% | 22.00% | -1.13% |
| 9 | Minnesota | 8.40% | 12.60% | 21.00% | 8.40% | 12.60% | 21.00% | -2.13% |
| 10 | Kansas | 7.00% | 9.80% | 16.80% | 7.00% | 9.80% | 16.80% | -6.33% |
| 11 | Lincoln F&P ¹ | 7.60% | 8.48% | 16.08% | 7.60% | 8.48% | 16.08% | -7.05% |
| | Average | 8.17% | 12.70% | 20.88% | 9.30% | 13.83% | 23.13% | |
| | National Average (GFOA Survey) | 6.93% | 15.82% | 22.75% | | | | |

¹ Plan B.

IX. Meeting Benefit Adequacy and/or Competitiveness

One thing became clear as we analyzed the results of this study: there is little correlation between benefit adequacy and competitiveness. Priorities and policies differ between systems. Some systems place emphasis on COLA and Post-retirement death (payment form) benefits, while others value the amount of the initial retirement benefit.

Given the differences in the benefit structures, some systems may meet benefit adequacy, yet fall below the median level when measuring competitiveness. This is true for both the Nebraska School and Judge's Systems. The opposite is true for the Nebraska State Patrol System. Although the ranking of the State Patrol System is over the median, the adequacy falls below the target level. The State and County Systems on the other hand, fall short of both the benefit adequacy target and the competitiveness median. Since both of these plans are defined contribution plans, the actual benefit level attained will vary by employee, based on the investments they select and the resulting investment return experienced.

The setting of long-term benefit policy objectives may include meeting benefit adequacy or competitiveness, or both. Based on the findings of our study, the following is a list of potential plan changes designed to address areas where the Nebraska Retirement Systems were found to be below minimum adequacy or competitiveness targets.

State and County Systems

- Increase contribution rates to meet adequacy. A total contribution rate of 12% - 13% would be sufficient to meet benefit adequacy targets for the average career employee. An employee contribution rate of 4.8% of pay and 156% matching employer contribution would meet this objective.
- Add a defined benefit element to improve the competitiveness of the current system. This can be accomplished by giving employees a choice between a traditional defined benefit plan or cash balance plan, and the current defined contribution plan. Risk averse employees would benefit from the defined benefit form, while investment savvy employees can choose the defined contribution plan.
- Add a Guaranteed Income Option for retiring employees. This option is a self-funded approach to purchasing an annuity. A retiring employee could elect the annuity, with or without a cost-of-living adjustment built into the payments, using their account balance at retirement. An annuity reserve account could be set up to administer payments much like the Annuity Reserve Account for the School System.

School System

- Increase the cap on the automatic COLA from 2.0% to 3.5% per year to maintain adequacy throughout retirement.
- Improve competitiveness of the vested benefit by adding a Portable Retirement Option. This would also improve portability by allowing a lump sum distribution of the employee and a portion of the employer contribution balance.

Appendix C

Summary of Benefit Provisions of Regional State Retirement Systems

Judges System

- Increase the cap on the automatic COLA from 2.0% to 3.5% per year to maintain adequacy throughout retirement.
- Add an early retirement benefit with an reduction of 3% - 5% per year for payments which begin before age 65 to improve competitiveness.
- Change the normal form of the payment to a 50% joint and survivor annuity to improve competitiveness.

State Patrol System

- Increase the cap on the automatic COLA from 2.0% to 3.5% per year to maintain adequacy throughout retirement.
- Increase the cap on service used in the benefit formula from 25 years to 27 years. This would be sufficient to meet the benefit adequacy target for a career employee. A further increase in the service cap to 30 years would meet the adequacy needs of employees earning below the average salary level.
- A decrease in the early retirement reduction factor from 6 2/3% per year to 4%-5% per year would improve the competitiveness of the early retirement benefit.

Another way to improve the adequacy of the benefit in retirement is to offer coverage in a group medical plan for retirees over age 65. This would reduce the income replacement needed to purchase Medicare supplemental insurance. Group medical insurance can be provided at a lower overall cost to retirees than individual coverage. Consideration should also be given to providing a fixed subsidy to encourage participation and increase the risk pool. Two states in our regional survey, Colorado and North Dakota, provide a fixed subsidy based on years of service. The subsidy is funded by a 1.1% of pay contribution in Colorado and 1.0% of pay in North Dakota. The subsidy is used to reduce the cost of the medical premium on a tax free basis, making it more tax efficient than an increased pension benefit which is subject to regular income tax.

APPENDICES

Appendix A

Summary of Benefit Provisions of Nebraska Retirement Systems

| Provisions | State | School | County | Judicial | State Patrol |
|---------------------------------------|---|---|------------------------------|---|---|
| Benefit Formula Multiplier | DC Plan | 1.90% | DC Plan | 3.50% | 3.00% |
| Final Average Salary (FAS) | n/a | Highest 3 years | n/a | Highest 3 years | Highest 3 years |
| Maximum Benefit | n/a | none | n/a | 70% of FAS | 75% of FAS |
| Normal Retirement Age/Service | n/a | 65/5, Rule of 85 at 55, 35 years of service | n/a | 65/5 | 60, 55/10, 25 years of service |
| Vesting | 5 years | 5 years | 5 years | 5 years | 6 years partial, 10-full |
| Early Retirement Age/Reduction | n/a | 60/5 reduced 3% for each year before age 65 | n/a | 55/5, actuarially reduced | 50/10, 5/9% for each month before age 55 or 25 years of service |
| Normal Form of Payment | n/a | Service Annuity: Life Annuity, Formula Annuity: 5-yr. Certain & Life | n/a | Life Annuity with cash refund | 75% Joint & Survivor (100% if dependent children under 19) |
| Cost of Living: COLA | n/a | Equal to CPI, limited to 2% per year. Benefit is guaranteed to be at least 75% of original purchasing power | n/a | Equal to CPI, limited to 2% per year. Benefit is guaranteed to be at least 75% of original purchasing power | Equal to CPI, limited to 2% per year. Benefit is guaranteed to be at least 60% of original purchasing power |
| Member Contributions | 4.33% of the first \$19,954 of salary, 4.80% thereafter | Greater of 7.25% or 49.75% of rate necessary to fund liabilities | 4.00% | 6% during first 20 years of service | 11.0% of salary plus 11.0% of unused sick and vacation leave at termination |
| Employer's Contribution | 156% of Member contributions | 101% of Member contributions, plus 0.7% of pay-State contribution | 150% of Member contributions | Normal Cost in excess of court fees, appropriations, plus unfunded liability | 11.0% of salary plus unfunded liability |

Appendix B

Summary of Benefits Provisions of Other Local Retirement Plans

| Provision | Lancaster County | Lincoln Police & Fire | Omaha Police & Fire | Omaha Public Schools | Douglas County |
|---|--|---|---|--|--|
| Plan | The Lancaster County, Nebraska Employees Retirement Plan | The City of Lincoln Police & Fire Pension Fund | Police/Fire Retirement System (City of Omaha) | Omaha School Employees' Retirement Systems | Douglas County Employees' Retirement Plan |
| Type Plan | DC (Money Purchase Plan) | DB | DB | DB | DB |
| Vesting | 7 years | 10 years | 10 years, must apply for vested status prior to leaving employment; otherwise a refund must be requested. | 5 years | 5 years |
| Final Average Salary (FAS) | n/a | Average during 26 consecutive pay periods preceding retirement or death | 26 highest consecutive pay periods in the last 5 years. | Highest 3 years | Highest 5 consecutive years out of the last 10. |
| Social Security Coverage? | Plan is in addition to social security | No, for employees hired Feb.86- medicaid, medicare portion | No | Yes | Yes |
| Benefit Multiplier Formula | n/a | Plan A: 2.56%, Plan B: 2.76% (2.00% for years after normal retirement), Plan C: 2.57% (2.00% for years after normal retirement) | No multiplier, total benefit is: 45% of average salary. with 20-24 years of service, 55% with 25 years of service +1% for each 6 mos. of service over 25 years. | 2%*final average salary*service, plus \$3.50/mo*service | [1%*service(prior to 1/1/62) plus 2%*service (after 1/1/62)]*FAS; 2% is for members who were employed on or after 10/4/97 (percentage is smaller if not; varies between 1.1%-1.5%) |
| Maximum Benefit | n/a | Plan A: 64% of pay, Plan B: 68% of pay, Plan C: 64% of pay; Min ben -- \$3,600 | 65% of final average salary | None | 60% cap |
| Normal Retirement Age | 60 | Plan A: 50, Plans B & C: 53 | 50/20, 55/10; Mandatory retirement at 62 | 65/5, Rule of 85 at 62 | 65/5; Rule of 75 at age 55 |
| Early Retirement Age | 55/10 | 50/21 (Except Plan A) | 50 | 55/10 | Earlier of 55/20 or 60/5 |
| Reduction for Early Commencement | n/a | Actuarially Reduced to age 53 | Benefit reduced to 20% of average salary with 10-14 years service and 30% with 15-20 years service | .25% per month prior to age 62, limited to 3% if 84 points, 6% with 83 points, and 9% with 82 points | Reduced 3% per year before the age 65. |
| Employee Contribution | Up to 5.2% | Plan A: 8.00%, Plan B: 7.60%, Plan C: 7.00% (at srvc=21, Plan B&C-no contrib.) | 10.89% | 6.30% | 5.50% |
| Employer Contribution | 150% of Employee Contribution | Actuarially Determined | 16.50% | State contributes 0.7%, School District contributes amount necessary to maintain solvency | vary slightly from year to year, but equal to employee's contribution: 5.5% |
| Normal Form of Payment | n/a | Life with cash refund | 15% of final average salary per child to max of 50%, 75% of pension is a surviving spouse benefit. If not married, life with cash refund to a designated beneficiary. | Life annuity; if death occurs before 60 mo payments are made, payments continue to bnfc or estate. | Automatic 60% surviving spouse, if 8 years of service; if spouse's age more than 5 years younger, reduction 1%*each year younger); |
| Cost of Living Increase | n/a | Provision for Ad Hoc in Pension Fund Ordinance | None for first 36 months; min(3%,\$50) increase/month thereafter | 1.5% per year | ad hoc; as decided by Douglas County Board; based on recommendations of the Retirement Committee. |

Appendix C

Summary of Benefit Provisions of Regional State Retirement Systems

| Provisions | Colorado | Iowa | Kansas | Minnesota | Missouri | North Dakota | South Dakota | Wyoming |
|-------------------------------|---|--|--|--|---|--|--|---|
| Year Origin Plan | 1931 | 1953 | 1962 | 1929 | 1957(orig plan) | 1965 | 1974 | 1949 |
| Plan Type | DB | DB, Mult Empl, cost sharing | DB, Multi ER, Cost Sharing | DB, Mult Empl, Cost Sharing | DB, Single Employer | DB, Multiple ER. Cost Sharing | DB, Multiple ER, Cost Sharing | DB, Multiple ER, Cost Sharing |
| Benefit Formula | 2.5%*FAS*Svc. | 2%*FAS*Svc. + 1%*FAS*(Svc. from 30-35) | 1.75*FAS*Svc. | 1.7%*FAS*Svc. | 1.7%*FAS*Svc., temp ben at 62=0.8%*FAS*Svc. | 1.89%*FAS*Svc. | 1.550%FAS*Svc. before 7/1/2000+1.3%FAS*Svc. after 7/1/200; alternate 2.25% for all Svc. less 80% of primary SS benefit | 2%FAS*Svc. |
| Vesting Requirement | 5 | 4 immediate at 55 | 10; immediate at 65 | 3 | 5 | 3; Immediate. At 65 | 5 | 4 |
| Maximum benefit | 100%FAS | 65%FAS | None | None | None | None | None | None |
| Health Insurance | PERA provides a health insurance premium benefit up to \$115/mo(srv<20)-\$5.75*(20-srv) if srv<20. Starting July 1,2000 subsidy goes up to \$230/mo.before age 65 | No provisions in Pension Plan itself, however Premium for emp. Under 65 is \$277.07 and over 65--\$149.61 (with Medicare) with no contribution from the state. | No Provisions in Pension plan, Premium for emp. Under 65 is \$215.96 and over 65 - \$141.16 (with Medicare). No contribution from the State. | No Provisions in Pension Plan, retirees under 65 pay \$223.36/mo and over 65--\$236.42 (+Medicare). No contributions from the state. | Costs vary based on location and type of plan, with at least one no-cost option available. State Pays 34% of retiree premium. | Family coverage cost to retiree over age 65 is \$264.98 and \$438.48 for retiree under age of 65. State Retiree Health Credit Fund which provides credit toward the premium of \$4.50 per year of srv. | Premium for retiree under 65 is \$154.34, and over 65 -- \$82.86 (with Medicare). No contribution from the State. | WRS does not provide a health insurance premium subsidy, nor sponsor coverage. Premium for retiree under 65 is \$278.72 and over 65 -- \$189.16 (with Medicare) |
| Final Average Salary (FAS) | Highest 3 years | Highest 3yrs(to 52,000); or max (aver of 5 or 52000) | Highest 3 yrs | Highest 5 yrs | Highest 3 yrs | Highest 36(non-consecutive) of last 120 months. | 12 highest quarters of the last 40 quarters. | Highest 3 |
| Normal Retirement Age/Service | Rule of 80 (age >=55), none/35; 50/30; 60/20; 65/5; | Rule of 88; 62/20;65/4; | 62/10;65/any, rule of 85 | 65/1; 62/30; Rule of 90 | 62/5; Rule of 80; | Rule of 85; 65/any | 65/3 | Rule of 85; 60/4 |
| Early Retirement Eligibility | 50/25; 55/20; 60/5; | 55/any | 55/10 | 55/3 | 57/5; | 55/5 | Special:Rule 85, age>55; Early: anytime in 10 yrs prior Normal Ret | 50/4; any age/25; |
| Early Retirement Reduction | 3% per yr for ages 55-60, 4% -- 60-65; 6% prior to 55 | 3% per year | Reduction is 0.6%/mo between 55-60; 0.2%/mo btw 60&62. | Actuarially Reduced | Base benefit is reduced by 0.5% per month prior to normal ret. Age | 6% per year | Reduced 0.25%/mo prior to Norm Ret or Special Early | Reduced 5% per year prior to 60 |
| Normal Form of Payment | Life with cash refund | Life with cash refund | Life annuity with cash refund | Life with cash refund | Life with cash refund (from last actuarial report); Survey states that benefit includes 50% survivor's ben. | Life with cash refund | 50% survivor benefit | Life with cash refund |
| Social Security Coverage | None | Yes | Yes | Depends on Employer elect.; Public safety - not covered | Yes | Yes | Yes | Yes |

Appendix C

Summary of Benefit Provisions of Regional State Retirement Systems

| Provisions | Colorado | Iowa | Kansas | Minnesota | Missouri | North Dakota | South Dakota | Wyoming |
|-------------------------------|---|--|--|---|--|--|----------------|--|
| Cola | Automatic 3.5% | min(3%,0.8*CPI) for retired bfr 7/1/90; for those retiring after a favorable experience div paid up to 3% if sufficient funds are available from investment earnings | Ad Hoc, approved by legislature | CPI, up to 2.5% plus investment surplus(11.1436% total post-ret increase payable to elig. Ret. On 1/1/2000) | 80%CPI, up to 5% | Ad hoc, as approved by legislature. | Automatic 3.1% | Min (2.5%, CPI); some ad hoc increases |
| Member Contributions | Required; 8% | Required; 3.7% | Required; 4% | Required; 4% | Not required | Required; 4% | Required 5% | Required 5.57% |
| Employer Contributions | 11.6% (in 1996),11.3% -- most recent survey; 10.4% of which 1.1% is for retiree medical | 5.92%(in 1996), 5.75% in general | Determined by actuary; 3.2% in 1996;4.78% in 1999; FY2000 - 4.19%State agencies and schools; 3.22% Local | 4.2% in 1996; 4% in the most recent survey | Employers make all contributions; Board of Trustees-rate every fiscal year; most recent 11.91% | 4.12%; State contributes an additional 1% of salary to pre-fund a health insurance program for retirees. | Match: 5% | Contribution rate is statutorily set at 11.25%; employer decides the division: currently 5.68% |

** Supplemented by most recent State Employee Benefits Survey 1/1/2000

Appendix D

Summary of Benefit Provisions of School Retirement Systems

| Provisions | Colorado | Iowa | Kansas | Minnesota | Missouri | North Dakota | South Dakota | Wyoming |
|---|---|---|--|--|--|--|--|--|
| Plan | Included in Public Employees' Retirement Association of Colorado (except Denver Public Schools) | Included in Iowa Public Employees Retirement System | Included in Kansas Public Employees Retirement System | Minnesota Teachers Retirement Association | Public School Retirement System of Missouri | North Dakota Teachers' Fund for Retirement | Included in South Dakota Retirement System (Class A employees) | Included in State of Wyoming Retirement System |
| Vesting | 5 years | 4 years | 10 years | 3 years | 5 years | 3 years | 3 years | 4 years |
| Final Average Salary (FAS) | Highest 3 years | Highest 3 years (not greater than \$52,000) | Highest 3 years | Highest 5 consecutive years | Highest 3 consecutive years | Highest 3 years | Highest 3 of last 10 years | Highest 3 consecutive years |
| Social Security Coverage? | No | Yes | Yes | Yes | No | Yes | Yes | Yes |
| Benefit Multiplier Formula | 2.50% | 2% (3% for years 30 to 35) | 1.75% | 1.70% | 2.50% | 1.88% | 1.55% (or 2.25% with Social Security offset) | 2% |
| Maximum Benefit | 100% of FAS | 65% of FAS | No | None | None | None | IRC Section 415 Limit | No |
| Normal Retirement Age | Rule of 80 at 55, 65/5, 60/20, 50/30 | 65/4, 62/20, Rule of 88 | 65, 62/10, Rule of 85 | 65 if born before 1943, 66 if born after 1943 | 60/5, 55/25, Rule of 80, or 30 years of Service | Age 65 or Rule of 85 | Rule of 85 at age 55, 65/5 | Age 60 or Rule of 85 |
| Early Retirement Age | 50/25, 55/20, 60/5 | 55 | 55/10 | 55/3 | 55/5 or 25 years of Service | 55/3 | 55/5 | 50/4 |
| Reduction for Early Commencement | 3% after age 55, 6% before age 55 | 3% per year | 0.6% for each month between ages 55-60 and 0.2% for each month between 60-62 | 4.0-5.5% per year (unreduced at Rule of 90) | Unreduced if 30 years of Service Or Rule of 80 | 6% per year from earlier of age 65 or Rule of 85 age | Unreduced if Rule of 85 at 55 | 5% per year prior to age 60 |
| Employee Contribution | 8% | 3.70% | 4% | 9% w/o Social Security, 5% w/ Social Security | 10.50% | 7.75% | 5% | 5.57% |
| Employer Contribution | 10.4% (includes 1.1% for health insurance) | 5.75% | 4.19% | 9% w/o Social Security, 5% w/ Social Security | 10.50% | 7.75% | 5% | 5.68% |
| Normal Form of Payment | Life Annuity with Refund | Life Annuity with Refund | Life Annuity with Refund | Life Annuity with Refund | Life Annuity with Refund | Life Annuity with Refund | Life Annuity (with additional 60% spousal survivor feature) | Life Annuity with Refund |
| Health Insurance | yes | none | n/a | none | none | none | none | none |
| Cost of Living Increase | Automatic 3.5% per year | 80% of CPI, not greater than 3% per year (or greatest amount affordable as determined by actuary) | Last ad hoc in 1994: 3.0% | Variable based on investment performance & CPI | Based on CPI, not to exceed 5% per year or 75% over lifetime | Last ad hoc effective 7/1/1999: \$2.00 per month of service plus \$1.00 per month since retirement | 3.1% per year | 1.5% per year |

Appendix E

Summary of Benefit Provisions of Retirement Systems for Judges

| Provisions | Colorado | Iowa | Kansas | Minnesota | Missouri | North Dakota | South Dakota | Wyoming |
|-----------------------------------|---|-----------------------|---|--|---|---|--|---|
| Vesting | 5 years | 6 years | 10 years | 5 years | Automatic | 5 years, Immediate at 65; if disabled, 6 months | 5 | 4 |
| Final Average pay (FAS) | Highest 3 years | Final 3 years | Average of 3 highest years | Highest 5 in last 10 years | Highest 1 year | Highest 3 in the last 10 years | Highest 3 in the last 10 years | Highest 3 years |
| Soc Sec coverage | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Benefit multiplier Formula | 2.5%*FAS*service (up to 40) | 3%*FAS*service | After 7/1/87: 3.5%*FAS*service to maximum 70% FAS; Prior to 7/1/87: 5%/year up to 10 years, 3.5% after to maximum 70% FAS | 2.7%FAS(years before 7/1/1980)+3.2%FAS(service after 7/1/1980) | Monthly salary (for the highest full-time period of service)*0.5 | 3.5%FAS*(first 10 years)+2.8%FAS*(second 10 years)+1.25%FAS*(years over 20) | 3.583%FAS*(the first 15 before 7/1/2000)+3.333%FAS(<15 yrs after 7/1/2000)+2.25%FAS*(yrs>15, bfr 7/1/2000)+2%FAS(yrs>15, after 7/1/2000) | 4%*FAS*service(up to 5)+3%*FAS*service(between 5 & 15)+2%FAS*service(15-20)+1%(service over 20) |
| Maximal Benefit | 100% of FAS | 50% of Final Salary | 70%FAS | 70% last year's salary | 50% of FAS | None | None | 65%FAS |
| Normal retirement age | Rule of 80 at 55; 50/30; 60/20; 65/5; | 65/6; any/25 | 65/any; 62/10; Rule of 85 | 65/5; 70/1 | 62/12; 60/15 | 65; Rule of 85 | 65/3; Rule of 80 with age 55 | 70, 65/15, 60/20 |
| Early retirement age | 50/25; 55/20; 60/5; | 55/20 | 55/10, if not rule 85 | 62/5 | 60/less 15; 62/less 12. | 55/5 (before Rule of 85) | 10 yrs prior to Normal retirement date | 60/4 |
| Reduction factor | 4% per year if over 55, 6% per year if under 55 | Actuarial Equivalent | .2% per month for ages 60-62, .6% per month for ages 55-60 | Not Available | reduction factor=service/required service | 0.5%/month prior to age 65 | 0.25%/month prior to Normal Retirement Date | Actuarial Equivalent |
| Employee contribution | 8% | 4% | 6%, will drop to 2% aft reach max benefit of 70% | 8.00% | Not required | 5% | 9% | 9.22% |
| Employer contribution | 11.6% (for general system in 1996) | 5.75% | FY 2000 -14.38%; FY 1999- 15.68% | Last year's is 20.5% | Determined by actuary each year; board of trustees decides, Last 51.8%. | 14.52% | Matches: 9% | 5.68% |
| Normal Form of Payment | Life with cash refund | Life with cash refund | Life with cash refund | Life with cash refund | Life with automatic 50% surviving spouse benefit | Life with cash refund | Life annuity with Automatic 60% surviving spouse ben | Automatic 50% Joint Life annuity |

Appendix E

Summary of Benefit Provisions of Retirement Systems for Judges

| | | | | | | | | |
|-------------------------|---|--|----------------------------------|---------------------------------|---------------------------|--|-------|-----------------|
| | PERA provides a health insurance premium benefit up to \$115/mo(srv<20)-\$5.75*(20-srv) if srv<20. Starting July 1,2000 subsidy goes up to \$230/mo.before age 65 | | | | | | | |
| Health Insurance | | None | None | None | None | Retiree Health ins. Credit program in place: see member's handbook for description | None | None |
| COLA | general system has CPI up to 3.5% | General system: minimum(3%, 0.8*CPI); or determined by actuary | Ad hoc, approved by legislature. | general system: CPI, up to 3.5% | 80%*CPI, not more than 5% | Ad hoc, as approved by legislature | 3.10% | minimum(CPI,3%) |

Appendix F

Summary of Benefit Provisions of Public Safety Retirement Systems

| Provisions | Colorado | Iowa | Kansas | Minnesota | Missouri | North Dakota | South Dakota | Wyoming |
|---------------------------------------|--|---|--|---------------------------------|---|---|--|---|
| Plan | Fire and Police Statewide Defined Benefit Plan | IPERS/Sheriffs | Ks Police & Firemen's Retirement System. | State Patrol Retirement Plan | Missouri Transportation Department Employees' & Highway Patrol Retirement System | North Dakota public employees Retirement Plan: highway patrol | South Dakota Retirement System: Class B: public safety | Wy State Highway patrol, Game and Fish Warden and Criminal Investigator Retirement fund |
| Vesting | 5 | 4 | Tier I:20; TierII:15 | 3 | 5 | 10, Immed. At 60 | 5 | 6 |
| Final Average Salary (FAS) | Highest 3 yrs. | Highest 3 yrs. | Highest 3 out of last 5(if hired bfr 7/1/1993, included additional comp, if ow does not include) | Highest 5 yrs | Highest 3 consecutive years | Highest 3 in the last 10 | Highest 3 in the last 10 | Highest 3 |
| Soc sec Coverage | No | Yes | No | No | No | No | Yes | No |
| Benefit Multiplier Formula | 2.5% * FAS * Svc (up to 40) | 60%FAS for 22yrs (2.73%) + 1.5%/yr over 22. | 2.5%*FAS*srvc | 3%*FAS*srvc | 2.133%*FAS*svc | 3.4%*FAS*srvc(first 25 years); 1.75%*FAS*srvc (above 25) | 2.250%FAS*srvc (for srvc before 7//2000) +2%FAS*srvc (after 7/1/2000) | 2.25%*FAS*srvc |
| Maximum Benefit | 100% of FAS | 72% of FAS | 80%FAS | No cap | None | No cap | No Cap? | 75% |
| Normal Retirement Age | Any 30, 50/25, 55/20, 65/5 | 55/22 | Tier I:55/20; TierII:50/25;55/20;60/ 15 | 55/3 | 55/4 | 55/10 or Rule of 80 | 55/3; special early retirement: Rule of 75, age>45; no reduction to ben | 50/6 |
| Early Retirement Age | 50/20 | none | 50/20 | 50/3 | 55/10 | 50/10 or Rule of 80 before age 55 | 45/3 | None |
| Reduction of Benefit | 3% per year | n/a | 0.4% per month prior to age 55 | Not Available | Actuarially Reduced | Reduced 0.5%/mo prior to 55. | 0.25%/mo prior to 55 or special early ret. | n/a |
| Employee Contribution | 8% | 5.69% | 7%, after 2 srvc yrs - 2%,* | 8.4% (no ss contributions) | None | 10.30% | 8% | Currently, 11.02% |
| Employer Contribution | Match: 8% | 8.54% | FY2000: Local:varies; Highway patrol - 9.8%; KBI- 8.5%;Regents-7.4% | 12.60% | Actuarially Determined, Last Fiscal year 22% | 16.7% of covered payroll | Match : 8% | 11.33% May subsidize all or part of the employee contributions. |
| Normal Form of Payment | Life with cash refund | Life with cash refund | Life with cash refund | Life with cash refund | 50% Joint & Survivor | 50% surviving spouse benefit | Automatic 60% surviving spouse benefit | Life with cash refund |
| Health Insurance | No | No | No | No | No | Retiree health insurance credit program: NDPERS Dakota Plan participation only. | No? | No |
| Cola | 3.50% | min(3%, 80%CPI) | Ad hoc | CPI up to 3.5% | CPI up to 5% | Ad hoc, as approved by legislature | Automatic 3.1% | Automatic: based on CPI, not to exceed 5%; 1.5% (in 1999); |

* A few members employed before 1/1/76 have contrib. Reduced by ss, exclusive of contr. For Medicare. Benefits are reduced by half of original SS Benefits.